First Alert®

Indoor/Outdoor
Analog Wired Cameras and DVR
Model 8800

USER'S MANUAL

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First Alert®

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Safety

Safety Precautions

Do not drop, puncture, or disassemble the cameras or DVR.

Do not tug on the power adapter. Use the plug to remove it from the wall.

Do not expose the cameras or DVR to high temperatures.

For your own safety, avoid using the DVR when there is a storm or lightning in your area.

Use the cameras and DVR with care. Avoid pressing hard on the cameras or DVR body.

Do not crush or damage the power cable.

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subjected to the following two conditions: (1) this device may cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television equipment reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and the receiver.

Connect the equipment into an outlet on a circuit different from that to which the received is connected.

Consult the dealer or an experience radio/TV technician for help.

***Notice**: Changes or modifications to the product could void the user's authority to operate the product.*

DISPOSAL

These symbols indicate that it is prohibited to dispose of these batteries in the household waste. Take spent batteries that can no longer be charged to the designated collection points in your community.

Getting to Know Your 8800 DVR

Congratulations on purchasing your First Alert Security product. First Alert has been helping families and businesses stay safe for over 50 years. By having a First Alert Security System, you're taking the first step in protecting your home or business from damage or theft. We're watching, even when you're not.

Check Package Contents

Unpack the carton and check the contents for damage. Contact your supplier or dealer immediately if any part is missing or damaged.

320GB H.264 Web-Ready DVR System (1)

Power Supply/AC Cord (2): 12V, 5A for DVR and 12V 3000mA for cameras

Wired Indoor/Outdoor Cameras (8)

Camera Stands (8)

Mounting Kits (8)

60 ft. BNC Cables (8)

Audio In/Out Splitter Cable (1)

Remote Control (1)

Mouse (1)

Installation CD (1)

User's Manual (1)

Product Features

H.264 advanced video compression

Mobile phone/web-ready system

2 USB ports for data backup and mouse operation

Equipped with 320GB hard drive

Includes 30 infrared LEDs for night vision

Indoor/outdoor cameras

Includes 60 ft. BNC cables

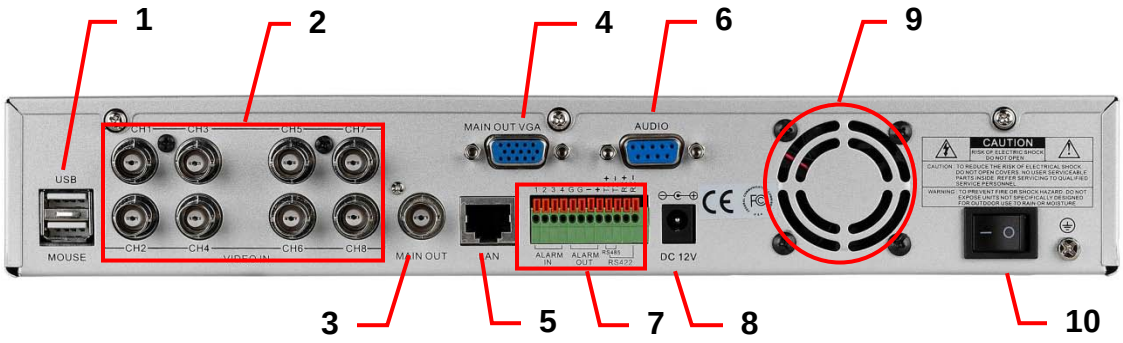
PRODUCT OVERVIEW

DVR FRONT PANEL

1	**CH #**	Select channel
2	☐ ⊞	Select full-screen output video from Channel 1–8 or all channels simultaneously
3	**NO ALARM**	Cancel alarm
4	**MENU**	Access main menu
	ESC	Exit the active window
	REC	Start/stop manual recording
	BACKUP	Open video search and backup menu
	▶/‖	Play/Pause in playback mode; open video search and playback menu
	PTZ*	Pan-Tilt-Zoom high-speed dome camera functions
5	**Navigation Buttons**	Cursor movement: ▲ = up, ▼ = down, ◀ = left, ▶ = right
	ENTER	Confirm/select operation
6	**IR Window**	Infrared sensor for remote control
7	**POWER**	Power LED
8	**HDD**	HDD status LED

*** CAMERAS SUPPLIED WITH 8800 SYSTEM ARE NOT EQUIPPED WITH PTZ FEATURE.**

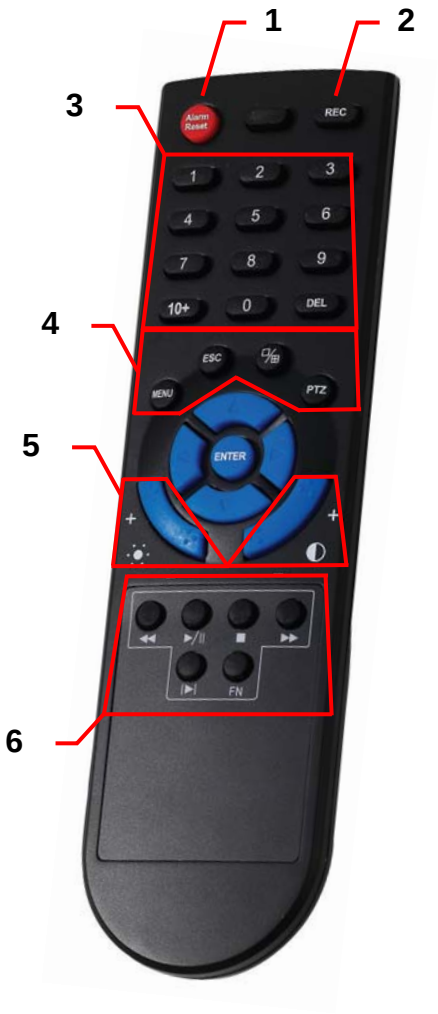
DVR REAR PANEL



1	**USB Ports**	USB ports for backup devices (flash drive, DVD recorder) and mouse
2	**Video Input**	8-channel video input, BNC (1Vp-p, 75Ω)
3	**Video Output**	Output to display monitor, BNC (1Vp-p, 75Ω)
4	**Video Output**	Output to display monitor, VGA
5	**Ethernet**	RJ-45 10/100 Base-T Ethernet port
6	**Audio output**	1-channel audio output (2Vp-p, 600Ω)
7	**ALARM IN** **ALARM OUT** **RS-422/RS-485**	Alarm input (1-4, 5-6, Ground) – external sensor devices Alarm output (7-8) – external alarm devices PTZ camera control (9-12)
8	**DC 12V**	Power input
9	**Fan**	Cooling fan air intake
10	**Power**	Power switch

REMOTE CONTROL

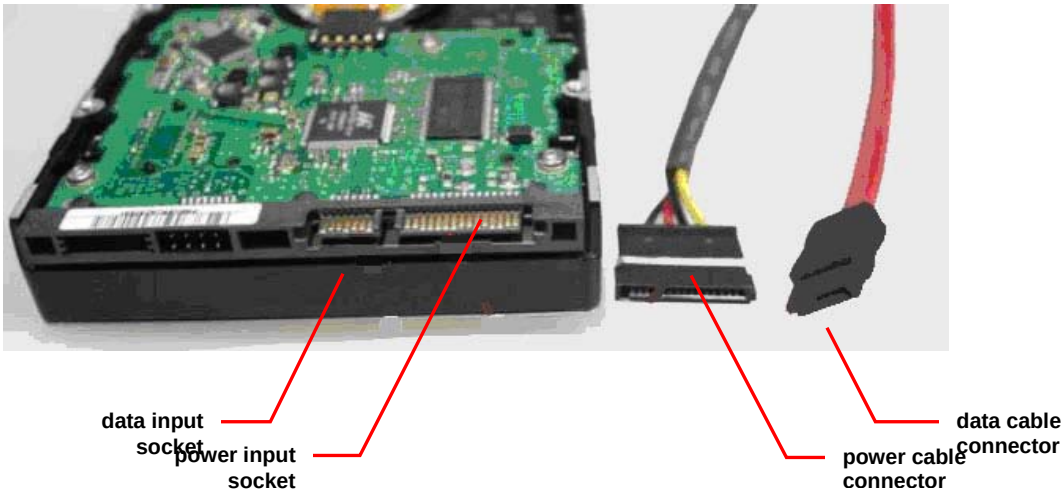
1	**Alarm Reset**	Clear the alarm input or alarm output status
2	**REC**	Start manual recording
3	**Number/Channel buttons**	Enter values 0–9 in menus when in live viewing
		Select channel to view when in full-screen
	DEL	Delete
4	**MENU**	Open main menu
	ESC	Return to previous menu
	⊞ □	Switch between multi- and full-screen displays
	PTZ*	Open PTZ control window
5	☼	Adjust brightness
	□	Adjust contrast
6	◀◀	Play in slow mode/rewind
	▶/‖	Play/Pause
	■	Stop
	▶▶	Fast forward
	▏▶▏	Go to next frame



* Cameras supplied with 8800 system are not equipped with PTZ feature.

INSTALLING A HARD DISK DRIVE

1 Install a hard disk drive (HDD) in the DVR following the instructions provided by the HDD manufacturer. Connect the data and power cables to the appropriate sockets.



2 Format the HDD using the DVR before attempting to record because the standard PC formatting is not compatible. Use the Maintenance tab on the Tool Bar Main Menu (See Chapter 7).

Note: Depending on the size of the HDD, formatting can take several minutes.

BASIC HARDWARE INSTALLATION

Cameras

Connect each camera output to the video input socket in the rear panel of the DVR using appropriate cable. The video input interface is a standard BNC connector, 1Vp-p, 75 Ω. Keep the video signal cable away from strong electromagnetic and electric interference.

Audio Connection

Connect the audio input to a standard RCA socket, 2Vp-p, 600 Ω. Keep the audio signal cable away from strong electromagnetic and electric interference.

Note: Only the DVR has audio capability; the cameras do not have audio.

Monitor

Connect the main output connector to a TV input with a BNC-to-RCA cable.

Power

Use the 12V DC adapters supplied for connecting the DVR and the cameras with a power source.

Alarm Input/Output

Connect Alarm In 1-4 to N.O. (Normally Open) or N.C. (Normally Closed) alarm connectors and one Ground connection. Connect Alarm Out to the corresponding connections and Ground accordingly. (See Chapter 5, *Alarm Input Type*.)

Ethernet

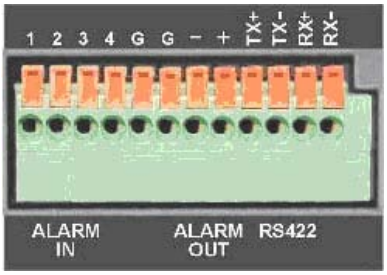
Connect a standard RJ-45 twisted-pair Ethernet cable to the Ethernet connector for remote access to the video images from the cameras via LAN or the Internet.

USB

Connect the mouse, USB flash drive, USB portable HDD, USB portable DVD recorder to the DVR USB port. The DVR supports only FAT32 file USB devices.

PTZ CONTROL CONNECTIONS (OPTION)*

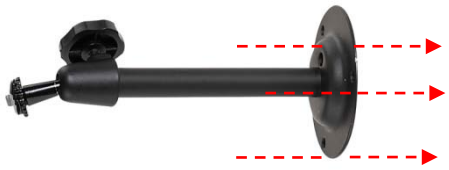
Connect the PTZ control jacks to the corresponding RS422/RS485 TX+ and TX-interfaces on the rear panel of the DVR. See the PTZ camera manual for descriptions of protocols, baud rates, and IDs.



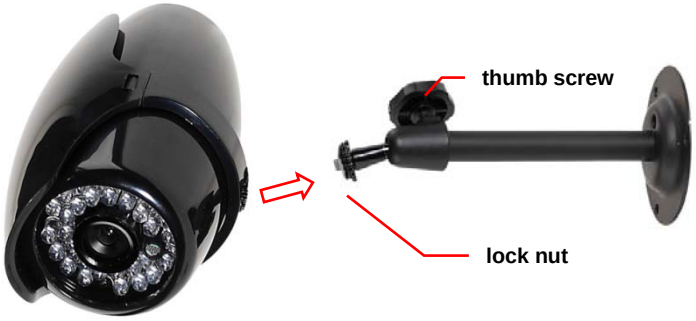
*** CAMERAS SUPPLIED WITH 8800 SYSTEM ARE NOT EQUIPPED WITH PTZ FEATURE.**

MOUNTING A CAMERA

1 Select the position for the camera and secure the camera stand. (Use an appropriate screw type for the mounting surface.)



2 Screw the camera onto the stand. Tighten the lock nut.



3 Adjust camera to the proper view angle. Make sure the lens is upright relative to the subject. Tighten the thumb bolt.

INSTALLING AND CONNECTING THE CAMERAS AND DVR

1 Connect the camera video connector into the BNC cable (supplied).

2 Connect the BNC connector on the other end of the cable to the video input on the DVR.

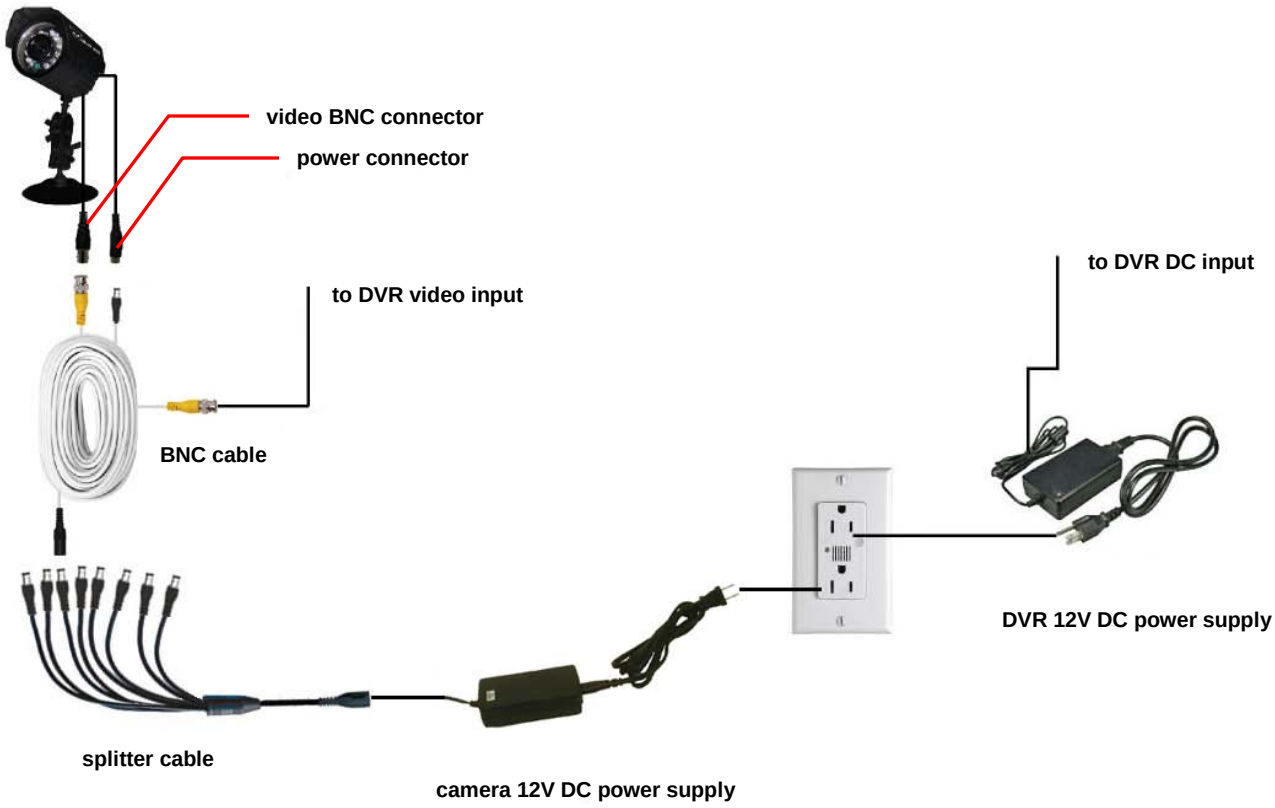
3 Plug the camera power connector into the BNC cable.

4 Plug the other end of the camera power cable into one of the camera splitter connectors.

5 Plug the camera power connector from the 12V DC power supply adapter into the splitter.

6 Plug the DVR power connector from the 12V DC power supply adapter into the power input on the rear panel of the DVR.

7 Plug the power supply cord from the two adapters into an electrical outlet.


video BNC connector
power connector
to DVR video input
BNC cable
to DVR DC input
DVR 12V DC power supply
splitter cable
camera 12V DC power supply

Getting Started

This chapter provides information about the main operating menus and tool bar options. The menus are used to configure the system and control the various functions of the DVR. The user selects options from a series of menus and executes the actions using the DVR keypad, the mouse or the remote control.

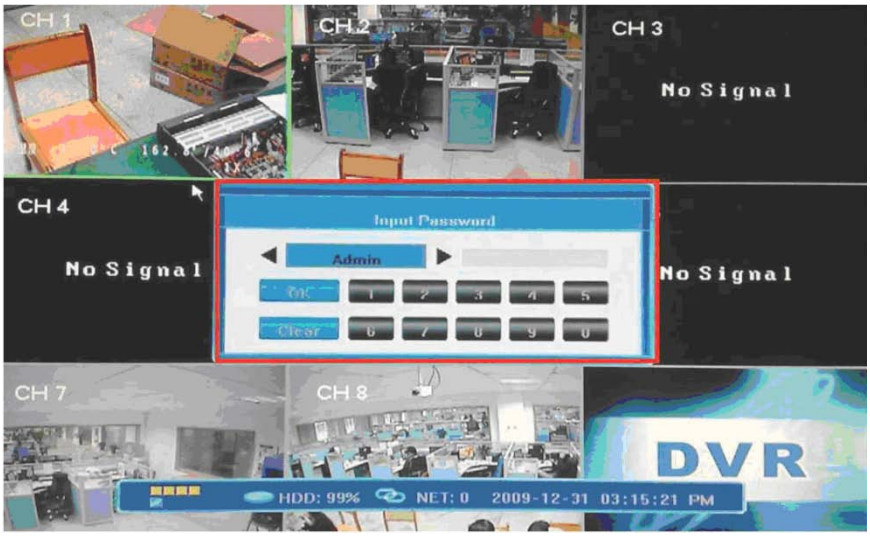
START UP

Power on the DVR and wait for the system to load.

Note: If you have not yet installed a hard disk drive in the DVR, a buzzer will sound and a "No Hard Disk" message will appear on the screen. (See Chapter 3, Setting Up.)

At log in, select your user account and enter your password. Choose the user accounts by clicking arrow buttons on both sides of the account field (or using arrow keys on the remote control), and enter the password using the numerical keypad in the lower part of the Input Password window. Press OK to confirm or press CANCEL to clear the field and enter another value.

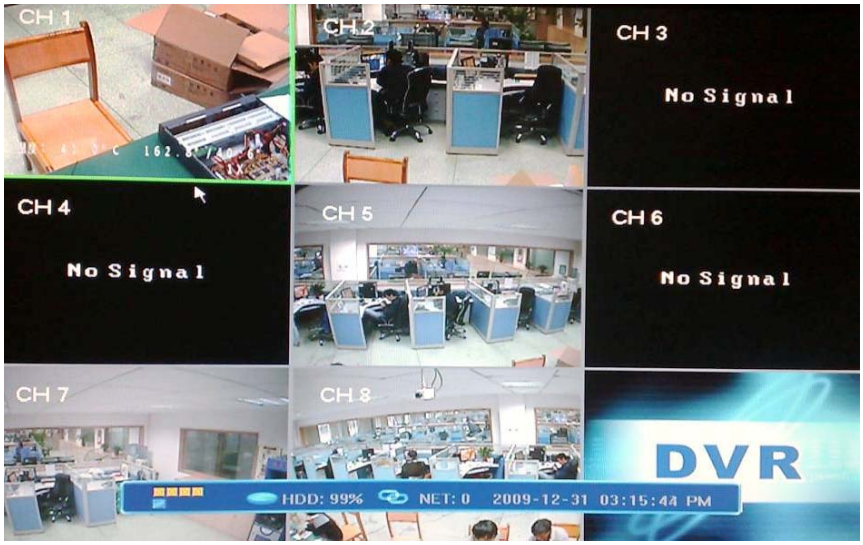
By default, the system has two users: Admin and User with preset passwords. Only the Admin (administrator) is able to change critical system settings.



Note: *The default password for Admin is 888888; User is 666666. Change your password in the System Settings of the System Configuration Menu (see* Password Setting*).*

MAIN MENU

The Main Menu has eight windows evenly distributed over the screen. Use the Main Menu to access menu options and switch channel views, displaying either all channel feeds simultaneously or a full-screen view of a selected channel.



DISPLAYING THE STATUS BAR, TOOL BAR, OR SINGLE CHANNEL VIEW

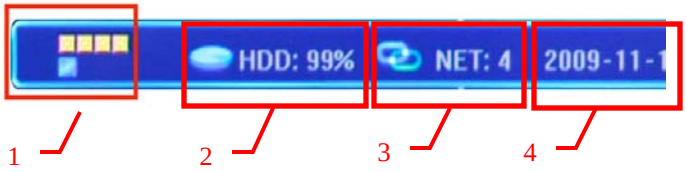
Right-click anywhere on the screen to display the Status Bar, Tool Bar, or neither.

To activate a single channel view from the multiple channel view, left-click twice on the particular window or press the single/multiple view button on the DVR front panel or remote control. To return to the multi-screen view, double-click on the screen or press the single/multiple view button on the DVR front panel or remote control.

STATUS BAR

Click anywhere on the screen to display Status Bar at the bottom of the window.

On the far left of the bar, are five colored squares, indicating the alarm status:



1 Alarm input status for each of the four windows and indicates alarm output. When alarm output is activated, color changes to red.

2 HDD usage (percentage).

3 Number of remote users accessing the system via the network/Internet (NET:X).

4 Current date/time in YYYY-MM-DD HH-MM-SS format.

TOOL BAR

To display the Tool Bar, right-click the mouse anywhere on the screen, or press ENTER on the front panel of the DVR or on the remote control.

The functions of the Tool Bar buttons are:

- Hide the Tool Bar and return to the Status Bar
- Access System Configuration menu
- Start manual recording
- Search, playback, and backup recorded files
- Access PTZ menu*
- Access current alarm information and cancel alarm notification
- View single window
- View 4-screen window
- View 8-screen window
- Adjust window layout/position

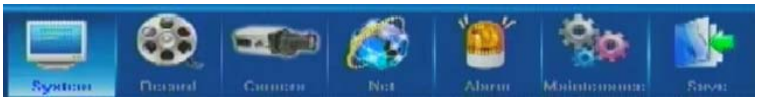
* Cameras supplied with 8800 system are not equipped with PTZ feature.

TOOL BAR MENU OPTIONS

SYSTEM CONFIGURATION

To access the system configurations screen, click the System Configuration icon on the Tool Bar.

Use the screen to adjust System, Record, Camera, Net, Alarm, Maintenance and Save settings. See Chapter 5, *DVR Settings* for descriptions of the system configurations settings.



MANUAL RECORDING

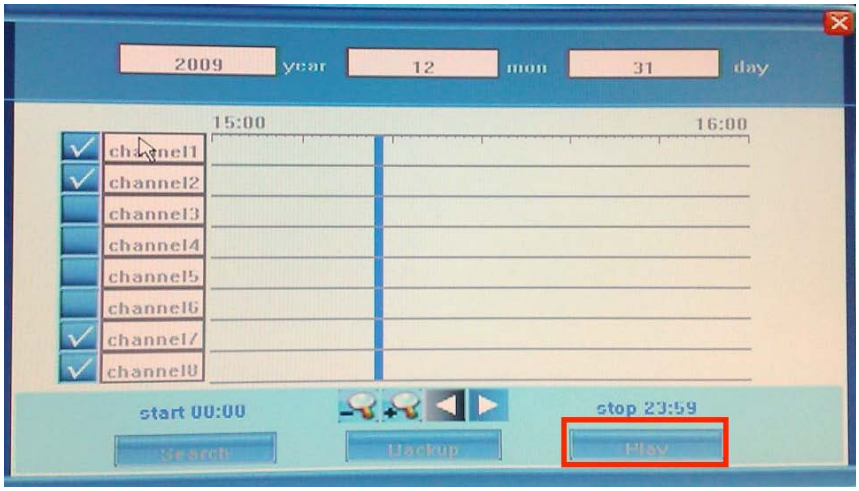
To record a video feed, click the Manual Record icon on the Tool Bar, or press REC on the front panel of the DVR or on the remote control to access the Manual Record menu. Select the channels you wish to record or choose to record all four channels simultaneously. Press OK to confirm, or press CANCEL to undo your choice.

There are three ways to record live video feed from the cameras: Manual, Scheduled, or Alarm. If the recording schedule is in conflict with manual recording, the manual recording will be processed first until stopped. Recording modes are displayed in the top right corner of the menu. Manual recording mode is indicated onscreen with the grey icon. See Chapter 5, *DVR Settings* for descriptions of the record settings.

VIDEO PLAYBACK

To playback a recorded video, click the Record Search icon on the Tool Bar.

Use the Video Playback menu to select the date/time and channel you wish to view. See Chapter 5, *DVR Settings* for descriptions of the playback settings.



To playback a certain video feed from a particular camera, indicate the time and camera from which you want to receive information. If using the remote, navigate between fields using the ◀ ▶ buttons and modify the time using the ▲and ▼buttons. Press ENTER to confirm your selection.

Using the mouse, position the cursor over the field and use the navigation buttons to modify the values. After selecting the day, click SEARCH to locate the recordings from that day.

Select the Start and Stop time on the time line positioned against the available channels (choose the channel to view by selecting the checkbox next to each channel). Up to four channels can be selected for playback. The start and stop times of the recording are indicated by two vertical lines on the time line. If using the remote control, go to the desired line using navigation buttons. To fine-tune the required time, use the buttons to zoom in/out of the time line, or use the ◀ ▶ buttons to move along the time line. Time values will display above the time line.

Using the mouse, left-click once to set up the start time, then left-click to indicate the stop time. Right-click to cancel the marked time.

The available recordings will be represented by colored bars on the time line depending on the type of recording (blue = common, green = motion detection triggered, red = alarm triggered, and grey = manually made).

Click Play on the menu tool bar, or navigate to it and press ENTER on the front panel of the DVR or remote control. The selected channels will playback in the view windows.

In Playback Mode, the playback control panel and the date/time of the played file display.

Fast rewind

Pause

Stop

Fast/Slow Forward (available speeds: 1x, 8x, 16x, 1/2x, and 1/4x)

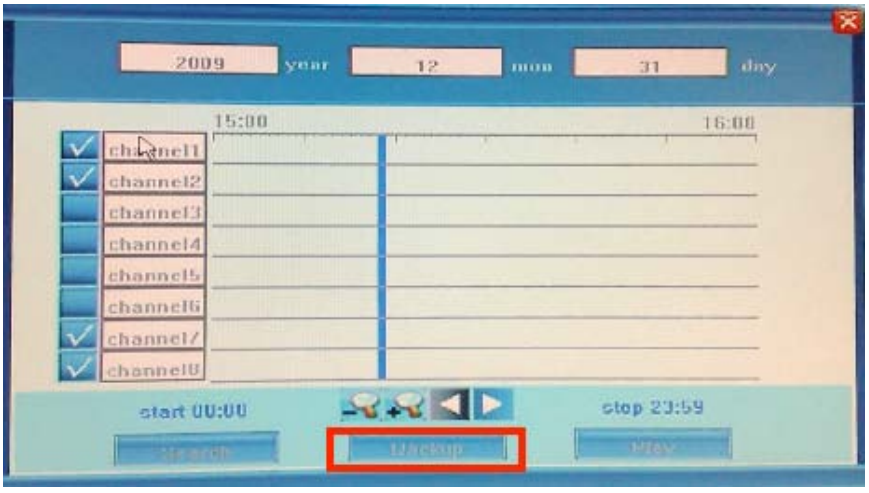
Frame-by-frame view

Toggle single camera view and 4 camera view

VIDEO BACKUP

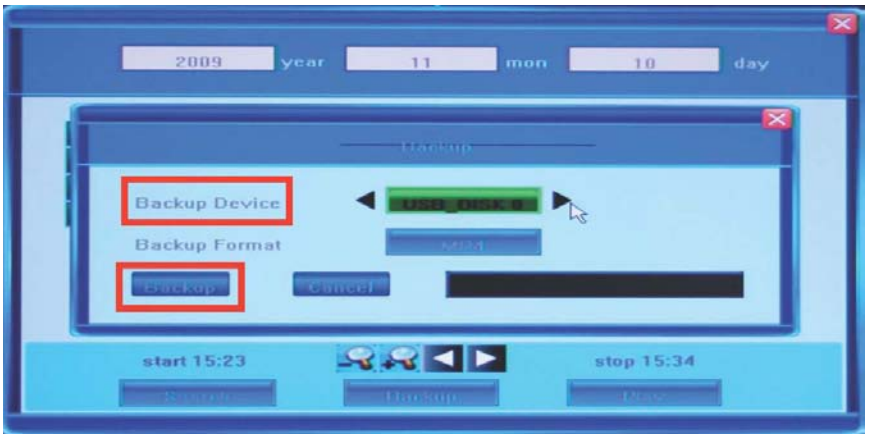
To backup a video, click the Playback icon on the Tool Bar.

To backup the recorded footage, indicate which cameras and time interval you want to save to an external source. Set the start and end time as described in *Video Playback* in this chapter.



After setting the start and stop times, click the Backup button to access the Backup menu. The system automatically detects all available backup devices and displays them in the Backup Device field. Place the cursor over the field or use the arrow buttons view the available choices. Press the arrows on each side of the field to toggle between options.

Note: If the system does not recognize connected devices or none are connected, a warning message ("No Available Device") displays.



Connect external media such as USB flash drives, portable USB HDDs, and USB DVD recorders.

Note: The system supports the FAT file system for USB flash drives.

Choose either H.264 Raw or MP4 format for video backup.

H.264 Raw Format
Stored video files can be played by an H.264 player. Download an H.264 player from http://www.videolan.org/vlc. Rename the stored video file from *.264 to *.h264 and play the video on a VLC Media Player.

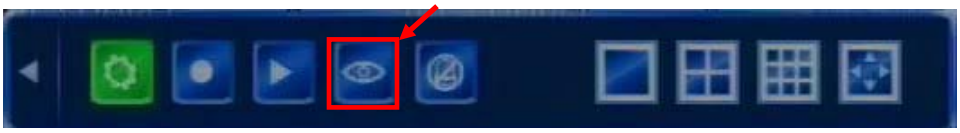
MP4 Format
The system automatically records special decoder components to USB flash drives or DVD discs along with the video file. After installing this component on a PC, use the Windows Media Player to play saved MP4 format video files.

To play backed up video on a PC:

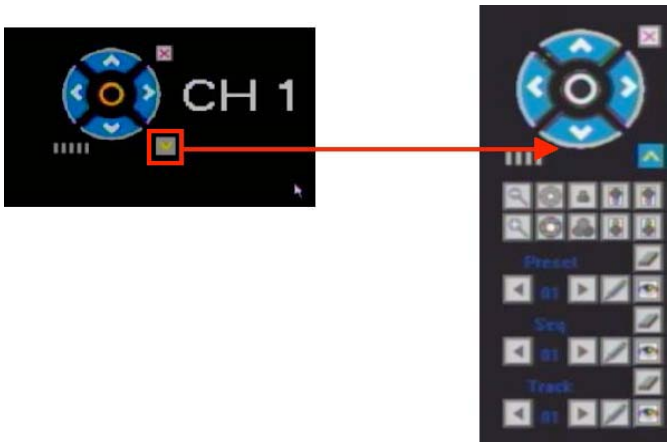
1. Locate the compressed file WMP_MKiaFilter.rar on a USB flash drive or CD/DVD where the video file was saved and decompress WMP_MKiaFilter.rar.
2. Execute InstallFilter.bat to install the decoder components.
3. Use the Windows Media Player to view the saved video.

PTZ CONTROL (OPTION)*

PTZ control is available for cameras with the PTZ (Pan-Tilt-Zoom) option. Press the PTZ control button to view the current video feed in single-screen mode.



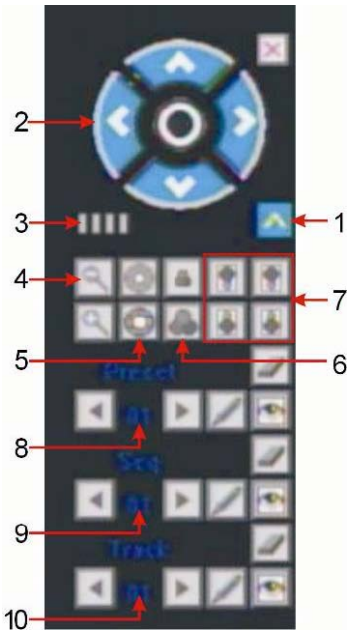
The PTZ menu displays in the top left corner of the screen. Use the navigation buttons to determine the rotation of the camera. Click the drop-down menu button to display the function panel.



* Cameras supplied with 8800 system are not equipped with PTZ feature.

Menu functions may vary depending on the make and model of the PTZ camera used.

1	**Toggle Functional Panel**	Toggle the panel view for the options available on a PTZ camera.
2	**Navigation Buttons**	Control the direction of the PTZ. (Refer to the PTZ camera user's manual.)
3	**Speed**	Set the turning speed on a PTZ camera. Use the mouse to click on the scale for adjusting this setting.
4	**Zoom**	Click to zoom in/out.
5	**Iris**	Click to make the image brighter or darker. (This function is disabled for cameras with automatic iris adjustment.)
6	**Focus**	Click to focus in/out. (This function is disabled for cameras with automatic focus.)
7	**Auxiliary**	Click to open and to close auxiliaries. Different functions respond to different protocols. The auxiliaries include light, wiper, power, etc. (Refer to the PTZ camera user's manual.)
8	**Preset Point**	Preset camera position, focus, zoom, and iris settings for easy access.
9	**Seq**	Sequence is a running route of the camera that passes through multiple presets.
10	**Track**	Track is a continuous running route of a camera.



Preset Point Procedures

To set the pre-adjusted settings:

1. Select the preset number.
2. Adjust the camera as desired, including direction, focus, iris, and zoom values.
3. Click the Set button.

To call the pre-adjusted settings:

1. Select the preset number.
2. Click the Start button.

To clear/reset pre-adjusted settings:

1. Select the preset number you want to clear or reset.

2. Click the Clear button.

Sequence Procedures

To set a sequence:

1. Select preset number.
2. Click the Set button.
3. Repeat steps 1 and 2 to add more presets if needed.
4. Click the Run button.

To clear a sequence:

1. Click the Clear button to clear sequence.

Track Procedures

To set a track:

1. Click on the track button to start.
2. Move camera in the pattern you want it to run.
3. Click the track button again to finish the track setup.
4. Click the run button to run track. Click again to stop running.
5. Click the clear button to clear the track sequence.

SCREEN VIEW MODES

Use the screen view button on the Tool Bar to switch between single- and multiple-screen views depending on the number of cameras installed. .

SCREEN LAYOUT ADJUSTMENT

Use the screen layout on the Tool Bar to access the Position screen.

Use the buttons to reposition the layout of a full image or a single-view.

Shrink/enlarge the window image vertically (creates a black margin at the top and bottom).

Shrink/enlarge the window image horizontally (creates a black margin on the left and right).

Move the window image up, down, left, right on the monitor (leaves black margin on one side of the display).

Auto-stretch the window image centering it with equal circumference margins.

OK Confirm the adjusted position.

CANCEL Cancel the current position.

CHANNEL STATUS DISPLAY

Status icons display on the top-right corner of each channel image.

Channel has detected motion in motion detection mode.

Channel is in the scheduled recording mode.

Channel is in the motion-detection triggered recording mode.

Channel is in the alarm-triggered recording mode.

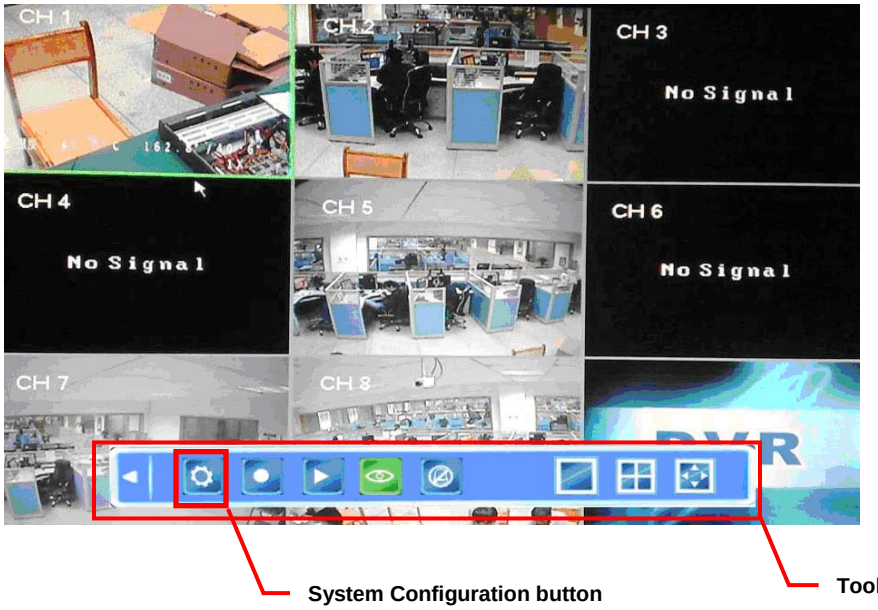
Channel is in the manual recording mode.

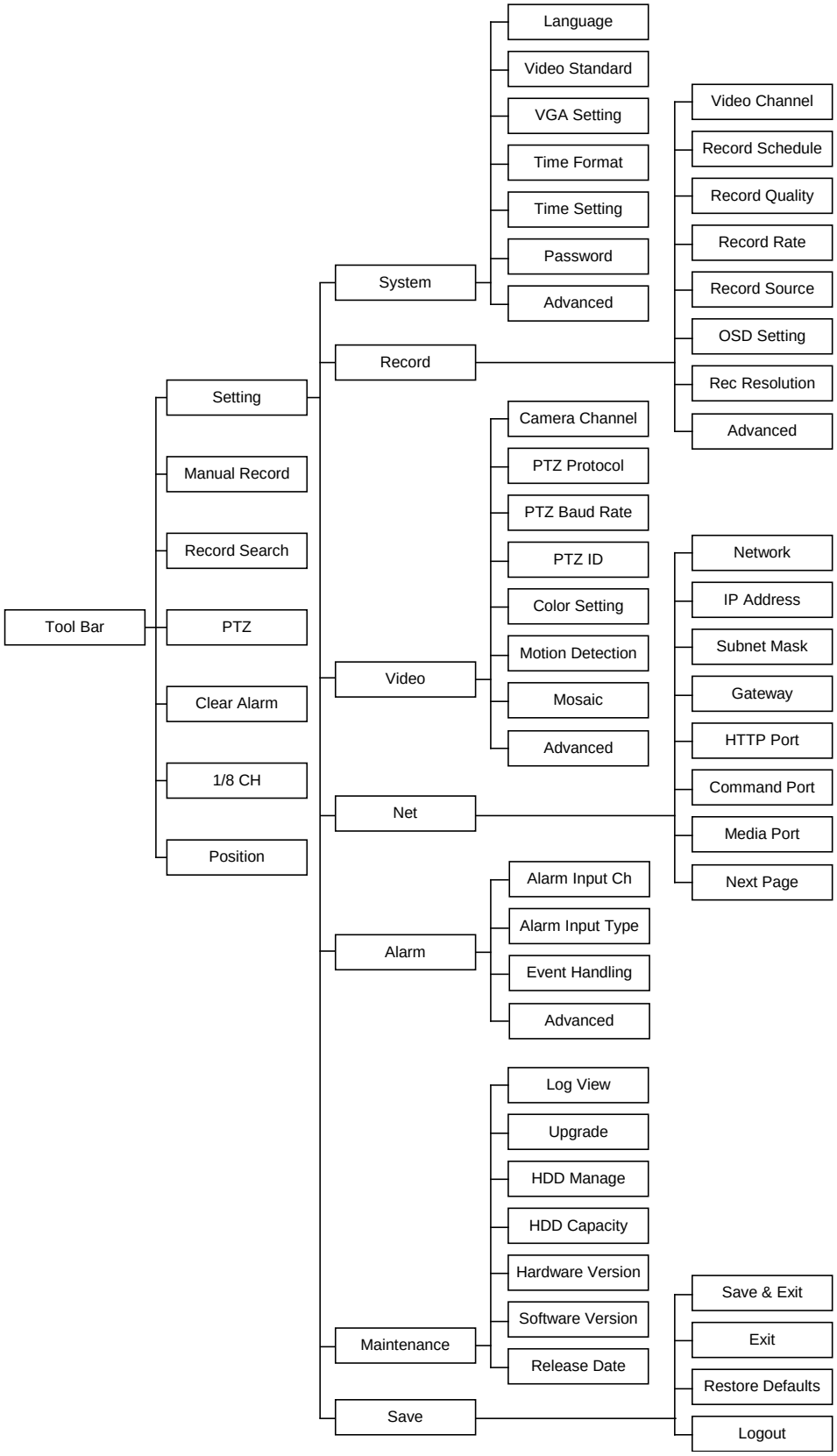
DVR Settings

This chapter provides an overview of the DVR system configuration menu and instructions for setting operating parameters.

System Configuration Menu

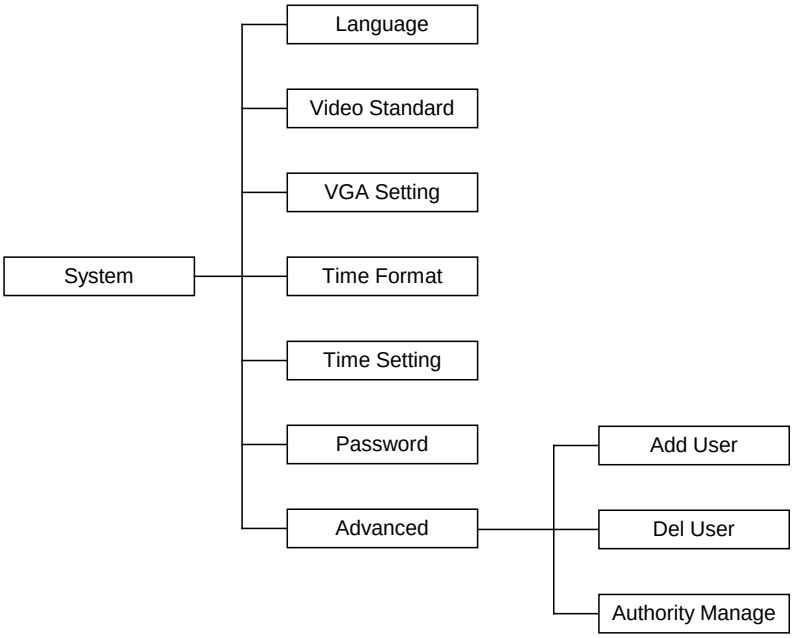
Click the System Configuration button on the Tool Bar to access the system configuration menu (See a menu Hierarchy on the next page). To display the Tool Bar, right-click anywhere on the window or press ENTER on the front panel of the DVR or remote control.



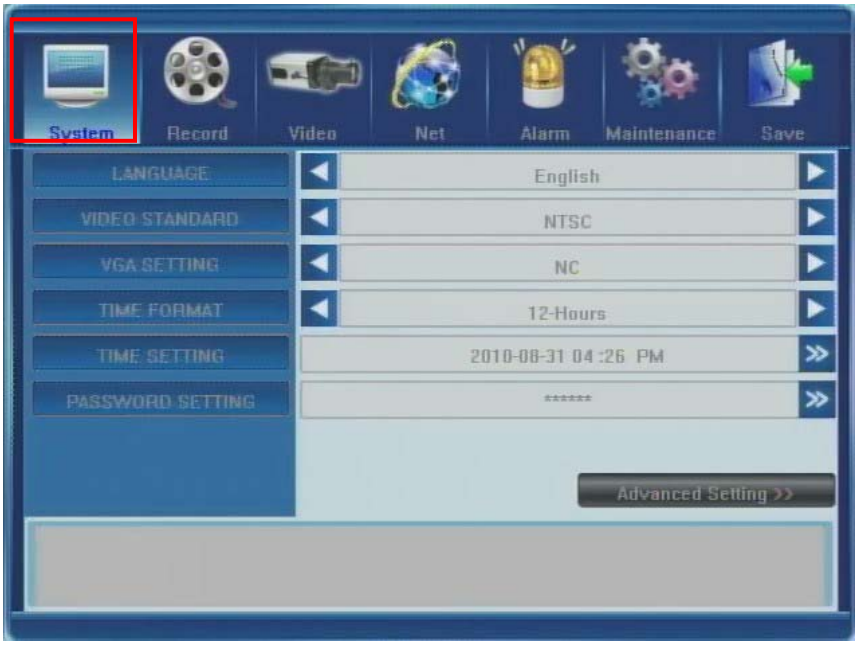

Tool Bar
Setting
Manual Record
Record Search
PTZ
Clear Alarm
1/8 CH
Position
System
Record
Video
Net
Alarm
Maintenance
Save
Language
Video Standard
VGA Setting
Time Format
Time Setting
Password
Advanced
Video Channel
Record Schedule
Record Quality
Record Rate
Record Source
OSD Setting
Rec Resolution
Advanced
Camera Channel
PTZ Protocol
PTZ Baud Rate
PTZ ID
Color Setting
Motion Detection
Mosaic
Advanced
Network
IP Address
Subnet Mask
Gateway
HTTP Port
Command Port
Media Port
Next Page
Alarm Input Ch
Alarm Input Type
Event Handling
Advanced
Log View
Upgrade
HDD Manage
HDD Capacity
Hardware Version
Software Version
Release Date
Save & Exit
Exit
Restore Defaults
Logout

SYSTEM

The System Configuration window provides access to seven sub-menus used to set the DVR system. A section describing each sub-menu and their available options follows.



Click the System button on the System Configuration menu to access the System settings sub-menu.



Select the general system settings for operating the DVR. Menu titles are on the left, and the corresponding changeable/non-changeable values are in the fields to the right. A short description of each setting displays when the cursor moves over the field name or, enter the fields using the navigational buttons on the front panel of the DVR or the remote control.

Use the arrow keys to the side of the field name to toggle through the available options. Several tabs have options on more than one window. Press the Next Page or Advanced Settings buttons to navigate between them.

LANGUAGE

Select the language for the DVR menu text and window displays. The change takes effect immediately and does not require saving and exiting the menu.

VIDEO STANDARD

Select the system video standard (options: NTSC, SECAM, or PAL). The change takes effect after saving and exiting the menu.

Note: Set the video standard to NTSC. If the system is set to PAL, the screen will keep rolling and images will be unviewable.

VGA SETTING

Depending on the model, you can select the preferred VGA output resolution:

800x600@60Hz	1600x1200@60Hz
1024x768@60Hz	1680x1050@60Hz
1280x1024@60Hz	1920x1080@60Hz
1440x900@60Hz	

TIME FORMAT

Select the time format (options: 12-hour or 24-hour). The change takes effect after saving and exiting.

TIME SETTING

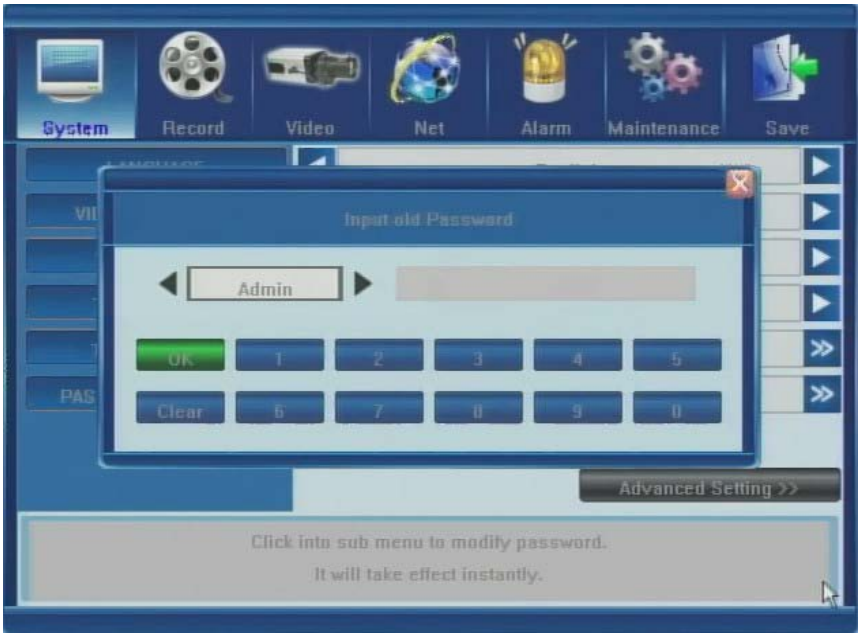
Adjust the current date and time set on the DVR. Click the >> button to open a dialog box and change the year, month, date, hours, minutes, and seconds. Click OK to confirm the setting or click CANCEL to reject the change.

Note: To avoid possible confusion with the time stamps on recorded and currently recording files, stop all ongoing recording processes before altering the system time and restart recording using the new settings.

PASSWORD SETTING

Modify the Administrator or User passwords. If logged in as Administrator, you can change both passwords. If logged in as a User, you can only change the user password. Enter the new password using the numerical keyboard. Click OK to confirm or click CANCEL to reject the change.

Note: The default password for Admin is 888888. The default password for User is 666666. We recommend you select and enter a new password at system start up. Keep a copy of the password in a secure location.



ADVANCED SETTINGS

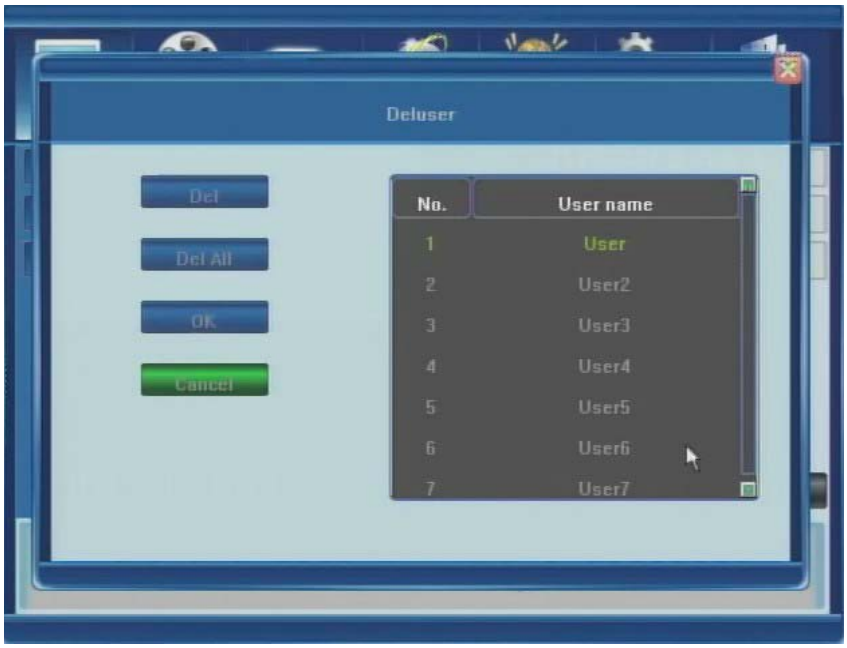
The Advanced Settings menu (lower right-hand corner) has three options: Adduser, Deluser, and Authority Manage.

ADDUSER

Click Adduser to add a new user to the system. Use the keypad to input user information. Click Enter to save.

DELUSER

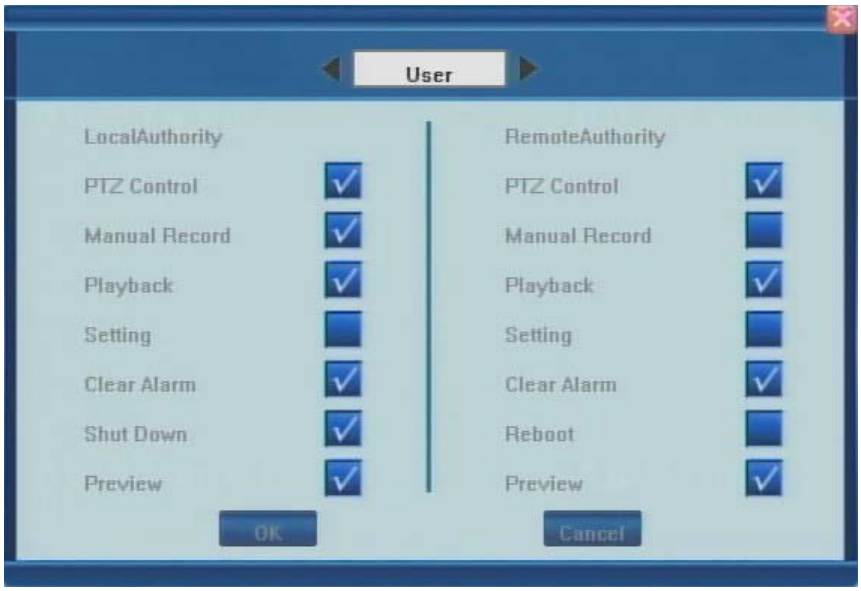
Click Deluser to remove a user from the system. Highlight the user name and click Delete.



AUTHORITY MANAGE

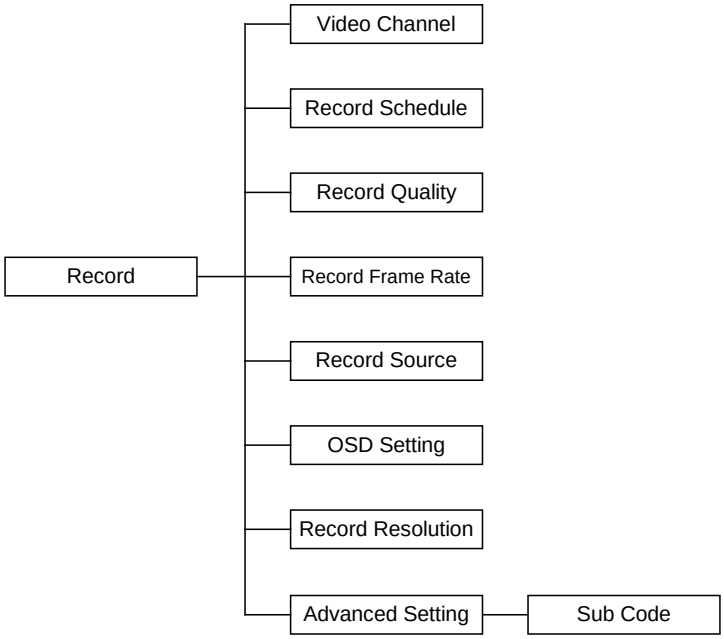
Use the Authority Manage window to set a local and remote authority to access selected system features. By default, only the administrator account is allowed to modify DVR settings.

In the authority options window, click the box next to an option to issue that authority to the user (check mark displays when selected). Click OK to confirm the setting or click CANCEL to reject the change. Click the Common Setting button in the bottom-right corner to return to the original window.



RECORD

The Record window provides access to eight sub-menus used to set the record parameters. A section describing each sub-menu and their available options follows.



Click the Record button on the System Configuration menu to access the Record Settings sub-menu and adjust settings related to recording CCTV images to the HDD.

VIDEO CHANNEL

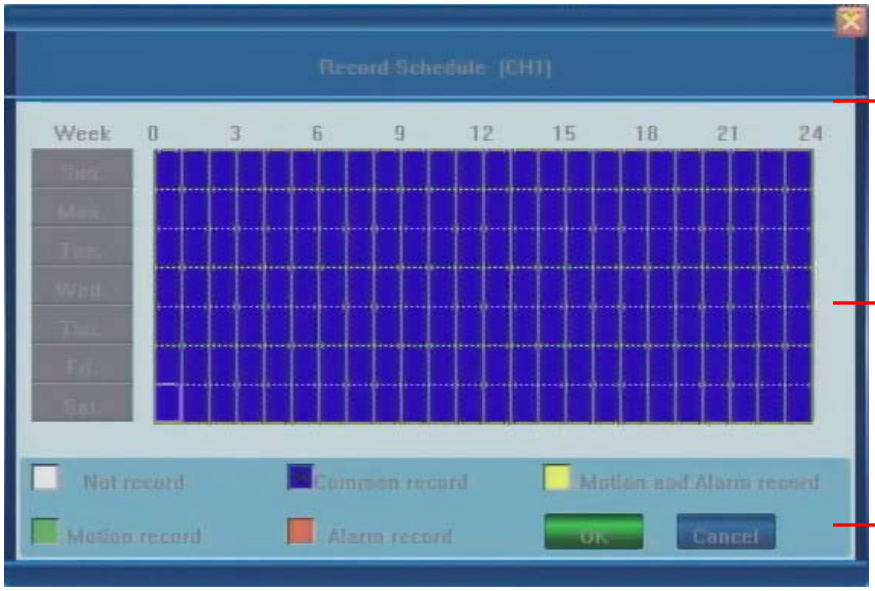
Use the arrow key to select the camera (channel) number whose settings you want to modify (options: 1 through 8, or All).

RECORD SCHEDULE

Create a schedule for recording tasks throughout the week so that only certain events are recorded to the HDD. Select a color option button at the bottom of the screen and then click on the hour in the graph or click and drag an area in any direction to highlight several cells. Press OK to confirm the settings. The changes will take effect after saving and exiting the menu.

For example, to set up the system to record non-stop during normal business hours, record only alarm-triggered events during lunch time (recording will not occur unless an alarm event happens) and then record only motion-triggered events at night time.

Note: Manual recording overrides all record settings until stopped by the user.



1 The current recording channel number being modification. The changes will be applied to all available channels.

2 The weekly recording schedule for recording various kinds of events Sunday through Saturday on a 24-hour basis. Weekdays are represented in the column on the left and the hour line runs horizontally from 0 to 24 hours. One cell equals one hour.

3 The recording type for each event/type is color-coded:

White: Recording will not be performed during this time.

Blue: Recording full-time.

Green: Recording triggered by motion-detection.

Red: Recording triggered by an alarm.

Yellow: Recording triggered by an alarm or motion detection.

Select a color option button before highlighting time cells. Click on the hour in the graph or click and drag an area in any direction to highlight several cells. Press OK to confirm the settings. The changes will take effect after saving and exiting the menu.

Note: For motion detection recording, set both the motion detection sensitivity and zone. See the Motion Detection Settings *section below for details. For alarm recording and alarm triggering settings, see the* Event Handling *section.*

RECORD QUALITY

Select the quality level for recording audio/video. The options are:

Best (768 kbps)

High (640 kbps)

Mid (512 kbps)

Low (384 kbps)

Custom (user defined)

For the user defined option, click the >> button to access a numeric keypad. Enter the record quality value (kBit/s). Click OK to accept the changes or click CLEAR to reset the values.

RECORD FRAME RATE

Choose the recording frame rate (fps – frames per second). The lower the value, the less life-like and more jerky the recorded movements will be. However, a lower frame rate uses less HDD space. Make your choice depending on the precision with which you want to follow the events being recorded.

The options are: Full (30/25 fps depending on whether it is NTSC/PAL), 15 fps, 7 fps, 3 fps, 1 fps, or custom (user defined).

To enter a specific record frame rate, click the >> button to access a dialog box and enter the desired value using the numeric keypad. Click OK to accept the change or click CLEAR to reset the entered values.

Note: Since the maximum value for the frame rate is either 30 or 25 fps depending on the encoding system, your choice must be within the limits of 1 to 30/25 fps. If you enter a higher value, the resulting frame rate will reset automatically to the maximum allowed value.

RECORD SOURCE

Select whether the signal coming from the source will include audio. The options are: Video, and Video and Audio.

OSD SETTING

Define the information that will be recorded as the OSD (On-Screen Display) string. The options are: Camera Name and Time stamp, Camera Name stamp, Time stamp, or None. Use the arrow buttons to select an option.

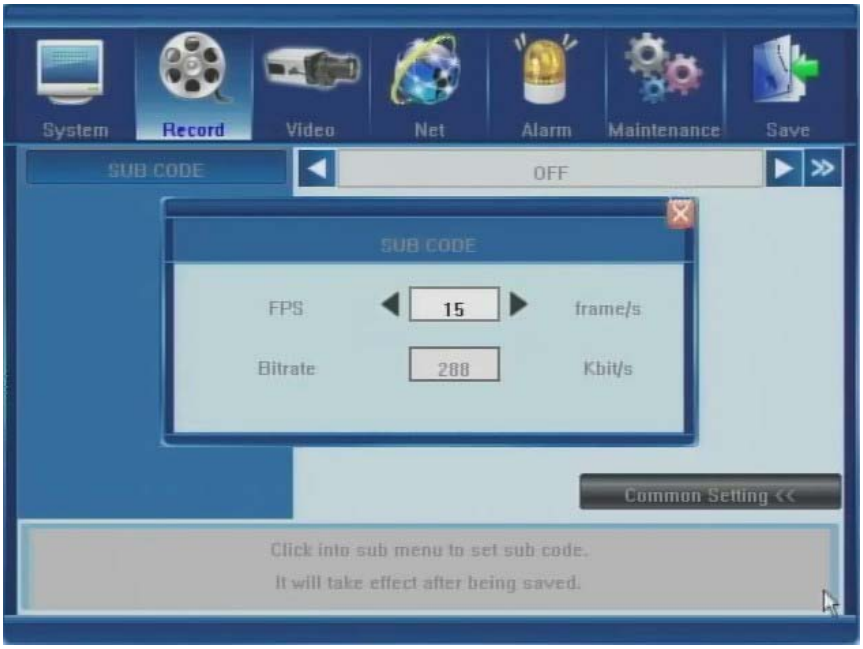
RECORD RESOLUTION

Select the record resolution (options: CIF, D1, and Half D1).

ADVANCED SETTING

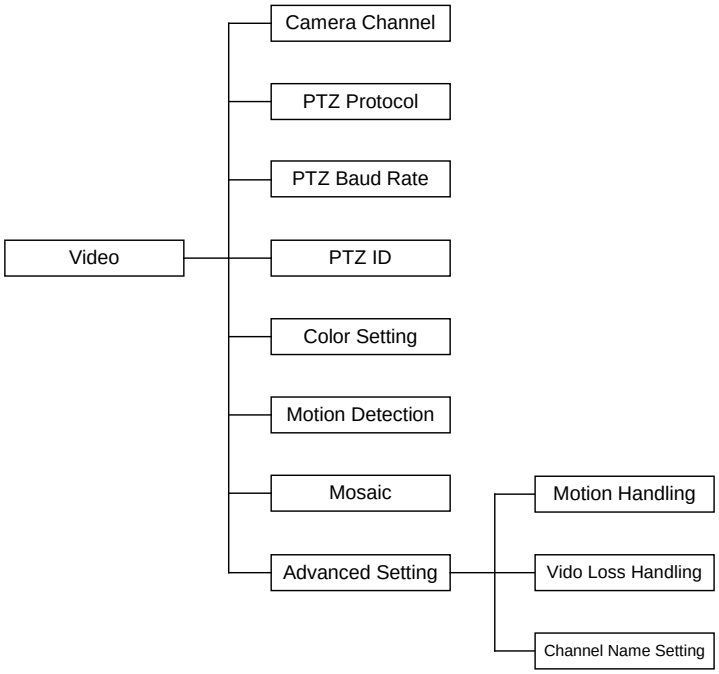
The Advanced Setting (lower right-hand corner) has one menu – Sub Code. The DVR can stream information for viewing both with IE Browser and a mobile phone. You can enable/disable sub code (ON/OFF options) or create customized settings by pressing the >> button at the right end of the field in the SUB CODE pop-up window and adjusting the frame per second (fps) and bit rate (Kbit/s) values.

Position the mouse over the required field and use the arrows to increase/decrease the values. In case of a limited upload bandwidth, optimize the Sub Code values for the IE client viewer and mobile streaming.

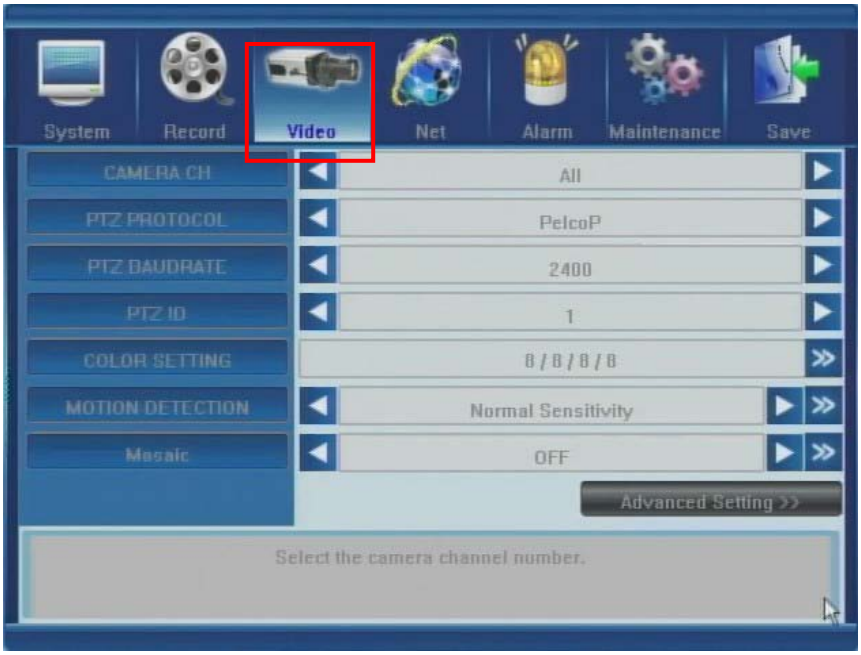


VIDEO

The Video window provides access to eight sub-menus used to set the camera parameters. A section describing each sub-menu and their available options follows.



Click the Video button on the System Configuration menu to access the Camera settings options and customize the settings for PTZ*/standard cameras and set up quality, motion detection, and privacy zones.



* Cameras supplied with 8800 system are not equipped with PTZ feature.

CAMERA CHANNEL

Click the arrow button to select the camera number (channel 1 through 8, or All).

PTZ PROTOCOL*

Select the PTZ device protocol, and make sure it is consistent with the protocol of the installed PTZ cameras (options include: Pelco-D, Pelco-P, Panasonic, Philips, Samsung, Tiandy, et.al.). The changes take effect when you save and exit the menu.

Note: Before changing PTZ protocols, select the correct channel (camera) number in the Camera Channel field.

PTZ BAUD RATE*

Select the PTZ device baud rate and make sure it is consistent with the baud rate of the installed PTZ cameras (options: 1200, 2400, 4800, or 9600 bps). The changes take effect when you save and exit the menu.

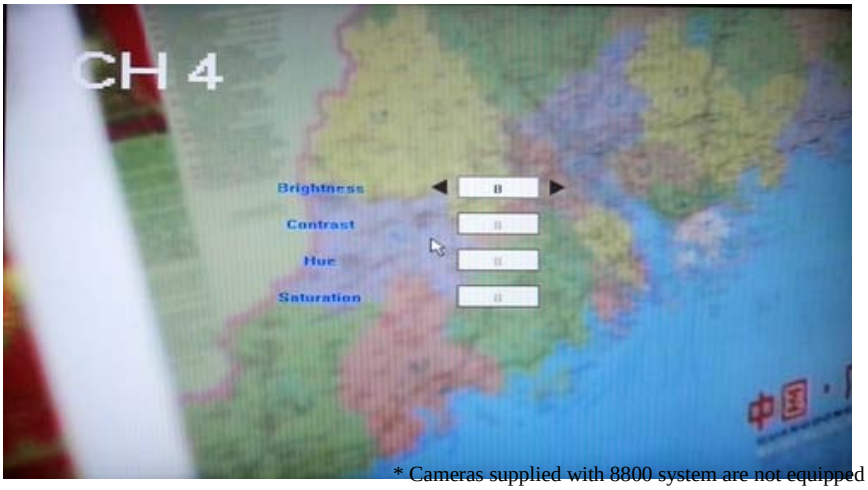
PTZ ID*

Select the PTZ device ID, and make sure it is consistent with the ID of the installed PTZ cameras. Choose a number from 0 to 255. Press the arrow buttons to select a value. The changes take effect when you save and exit the menu.

COLOR SETTING

Adjust camera color attributes (brightness, contrast, hue, and saturation) for the best image rendition. By default, the values are set at 8 (average value). Make adjustments depending on the conditions at the location where the camera is installed.

Press the >> button to display a full-screen image of the camera feed, with the four color characteristics listed.



* Cameras supplied with 8800 system are not equipped with PTZ feature.

Place the cursor over a field and click the arrows to increase/decrease the values (1–16). The live feed from the camera lets you view the adjustments. Right-click anywhere in the window to return to the Camera Setting window.

MOTION DETECTION

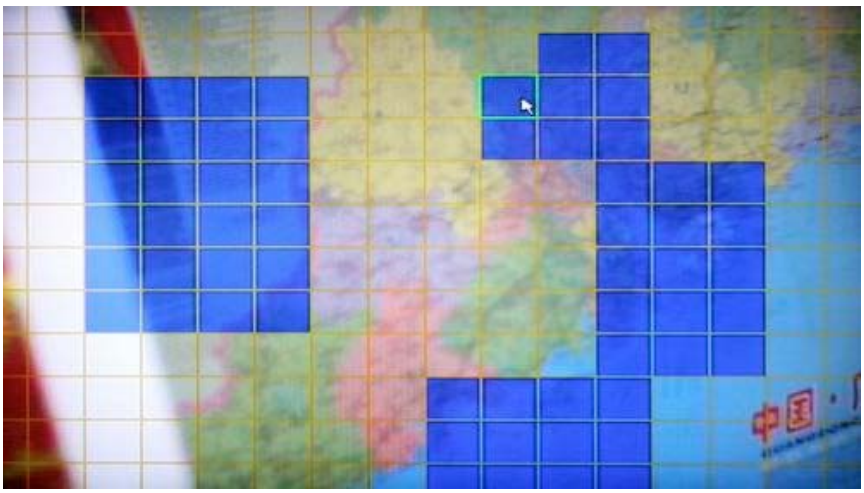
Set up motion detection sensitivity and manually configure the zones for motion detection. There are four motion sensitivity options: Highest, Normal, Low, or Disable.

It is possible to enable the motion detection feature in some zones of the camera view while other zones do not have this functionality. This may be useful when a camera covers the road and an adjoining open area. While you want motion detection working on the area near the entrance to the building, you do not want it triggered every time a car or truck passes on the nearby road.

Click the >> button to select the zone(s) in the camera view where the motion detection is activated/disabled. To view a full-screen image of the camera feed with a superimposed grid, left-click the mouse to select/unselect each cell or drag the cursor to select multiple-cells. Select as many zones as needed.

Blue highlighted squares indicate zones where motion will be detected. Clear squares indicate zones where motion will not be detected.

To return to the previous menu, right-click or press ESC on the DVR front panel or remote control.



MOSAIC

Sometimes certain zones within the camera view should not be monitored for privacy protection. For example, if the view shows the windows of an apartment building in the monitored zone, choose to not record the apartment. The zone options are: ON or OFF.

When ON, you can manually set up privacy zones. Click the >> button to view a full image of the camera feed. Left-click and drag to select zones to be grayed out on the live feed. Select as many multiple isolated and/or overlapping zones as needed. Right-click on

the window to return to the Video menu. The changes take effect when you save and exit the menu.

The following example shows a camera view with and without privacy zones.

Select OFF in the Mosaic field to remove a privacy zone(s) or cancel the option.

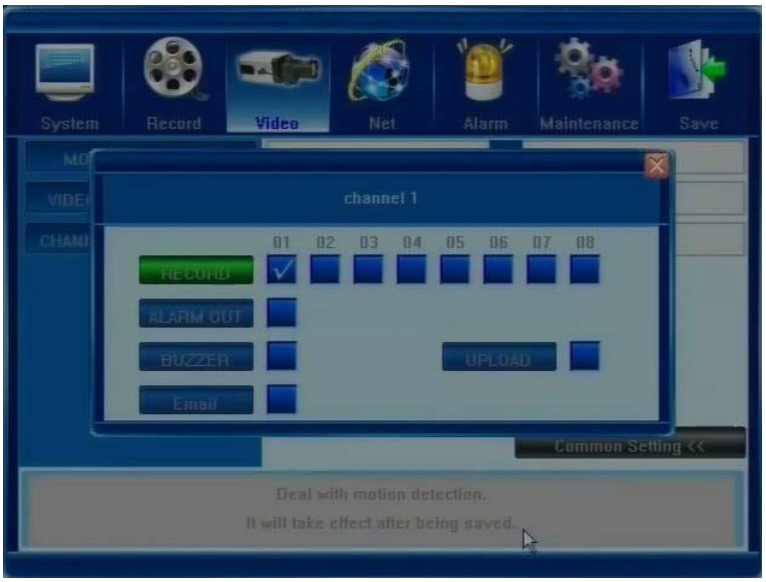
To undo a privacy area, click the >> button and right-click in the grayed-out zone (red border if it is active) to remove the red border. Right-click anywhere outside the gray zone to exit the menu and save the changes.

ADVANCED SETTINGS

The Advanced Settings menu (lower right-hand corner) has three options: Motion Handling, Video Loss Handling, and Channel Name Setting, which define how the DVR will respond to motion detection and video loss events.

MOTION HANDLING

Motion handling defines how the DVR will behave if the selected camera detects motion. Click the >> button to set the record, alarm out, buzzer, email, and upload options.



RECORD Select (checkmark) to trigger immediate motion detection from the selected cameras.

ALARM OUT Select to enable the Alarm Output when motion is detected.

BUZZER Select to enable the internal buzzer when motion is detected.

EMAIL Select to send an email, when motion is detected, to the indicated address(es), including a snapshot of the event. (See information on setting up the list of email addresses.)

UPLOAD Select to send a message to the browser applet when motion is detected. Message will display in the top right corner of the browser window. (Requires an established remote connection between the DVR and a PC via the Internet.)

VIDEO LOSS HANDLING

Video loss defines the behavior of the DVR if the signal from a camera is lost. Click the >> button to set the alarm out, buzzer, upload, and email options.

ALARM OUT Select to enable the Alarm Output when video loss is detected.

BUZZER Select to enable the internal buzzer when video loss is detected.

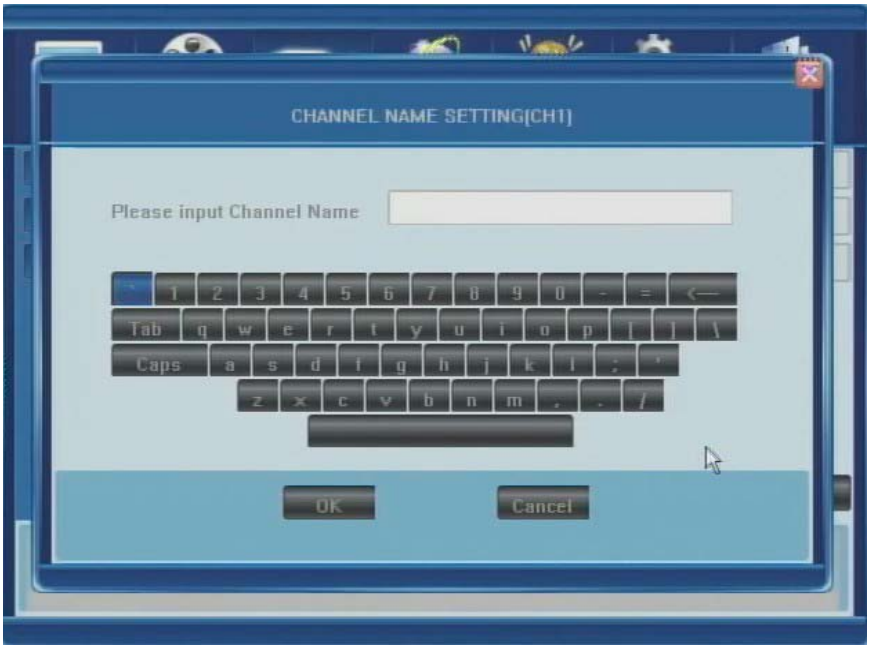
UPLOAD Select to send a message to the browser applet when video loss is detected. Message will display in the top right corner of the browser window. (Requires an established remote connection between the DVR and a PC via the Internet.)

EMAIL Select to send an email, when video loss is detected, to the indicated address(es), including a snapshot of the event. (See information on setting up the list of email addresses.)

Note: These options only apply to previously selected camera channels (listed by the column of check boxes.)

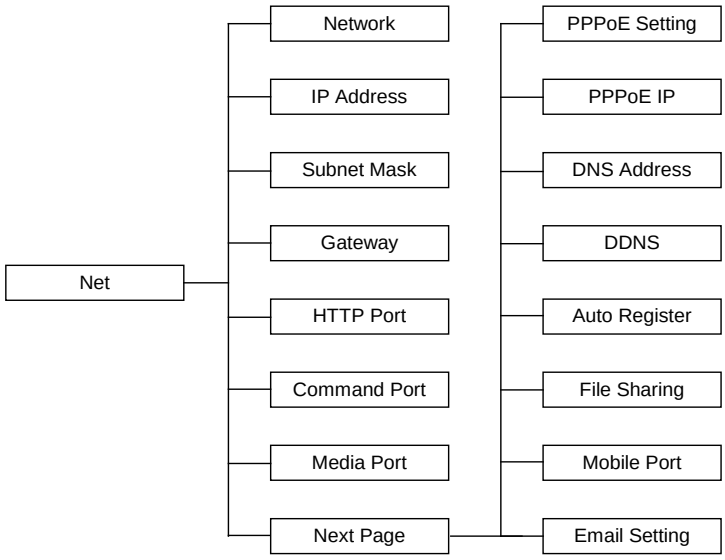
CHANNEL NAME SETTINGS

Click the >> button to display the channel name. Enter or change the channel name using the keypad. Click OK to save the new name.



NET

The Net window provides access to eight sub-menus used to set the network and web parameters. A section describing each sub-menu and their available options follows.



Click the Net button on the System Configuration menu to access the Network settings sub-menu and view/select network preferences.

NETWORK

The DVR supports several two options for online viewing after an IP address is set:

DHCP (automatic mode). Acquire the IP address using the DHCP client model.

Static IP (manual mode). Indicate the IP address using the Static IP model (enter data for IP Address, Subnet Mask, and Gateway fields).

Note: Contact your network administrator or Internet service provider for information specific to your network and an explanation of network settings.

HTTP PORT

The HTTP port connects to the DVR web server. By default, the value is 80. You can specify a different port number, if needed.

COMMAND PORT

The command port controls the DVR. By default, the value is 5050. You can specify a different port number, if needed.

MEDIA PORT

The media port is used for audio and video streaming. By default, the value is 6050. You can specify a different port number, if needed.

Note: If the DVR is installed behind a firewall server, the values of the network ports must be set as follows in order to upload to a WAN interface:

HTTP port: 80
Command Port: 5050
Media Port: 6050
Mobile Surveillance Port: 7050

If the DVR is installed behind a router to share a single public IP address, configure the Port Forwarding or Virtual Server for the HTTP, Command, and Media ports:

HTTP port: 80
Command Port: 5050
Media Port: 6050
Mobile Surveillance Port: 7050

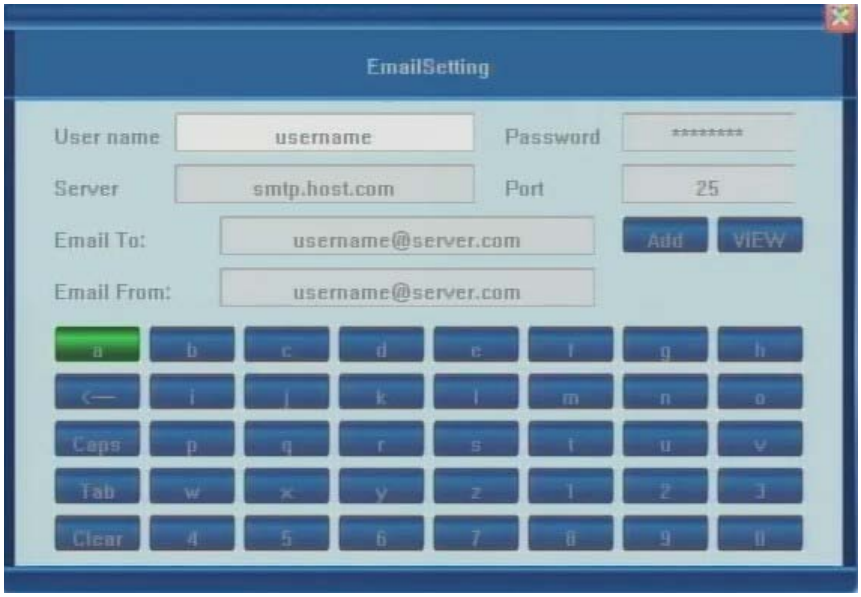
NEXT PAGE

The Next Page menu (lower right-hand corner) has eight sub-menus: PPPoE Setting, PPPoE IP, ONS Address, DDNS, Auto Register, File Sharing, Mobile Port, and Email Setting.

PPPOE SETTING

Use the arrow keys to activate/deactivate (ON/OFF) the PPPoE setting. The changes take effect when you save.

Click the >> button to access the PPPoE Setting window. Using the keypad, enter the user account name and password. Get this data from your Internet Service Provider.



PPPoE IP

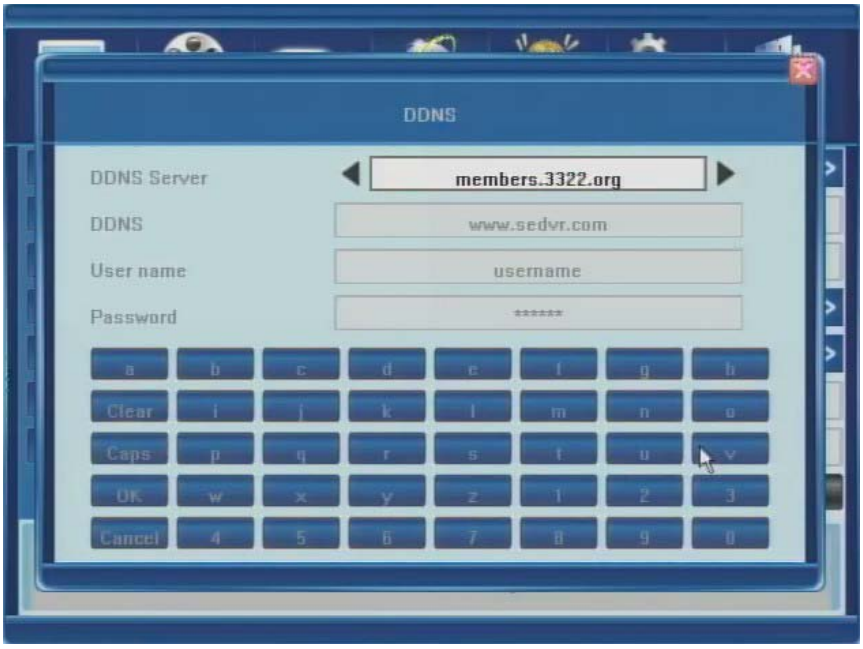
PPPoE IP values are based on your Internet account. Contact your Internet Service Provider for details.

DNS ADDRESS

Place the cursor over a value and use the pop-up keypad to enter your DNS address.

DDNS

Click the arrow to turn the DDNS option ON or OFF. When ON, click the >> button access the DDNS settings window and set the DDNS Server, User Name, and Password. Contact your Internet Service Provider for details.



AUTO REGISTER

Click the arrow to turn the Auto Register option ON or OFF. When ON, click the >> button access the Auto Register settings window and set the Server IP, Server Port, and Interval. Contact your Internet Service Provider for details.

FILE SHARING

Access live video feed or shared video files via a network or the Internet. To activate this feature, click the checkbox. To prevent file sharing, click the checkbox again to turn this option off.

To use the file sharing feature, type the DVR IP address in the browser address field to access the login page. Enter the Admin name and password. The shared files can be accessed in the Video Out folder. The available options are described in Chapter 6, *Web Browser Operation*.

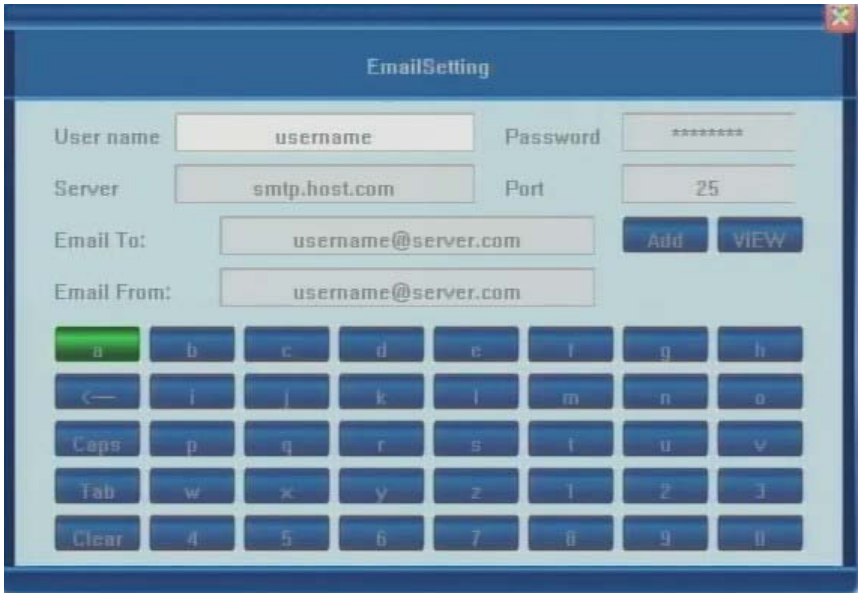
MOBILE PORT

The DVR allows remote access from a mobile phone. The port the mobile phone uses is indicated (default is 7050). For information on accessing DVR functions from mobile phones, see Chapter 7, *Mobile Phone Support*.

EMAIL SETTING

Note: To activate alarm-triggered email notifications, the functions must be set in the Alarm menu. See the following section for a description of the Alarm function.

Click the >> button to access the Email Setting window. Use the keypad to enter the email addresses for persons who need to receive alarm notifications when an alarm is triggered. Enter the User name and Password of the email account to which notification emails will be sent and indicate the Server and Port details. Make sure the email account exists and is active.

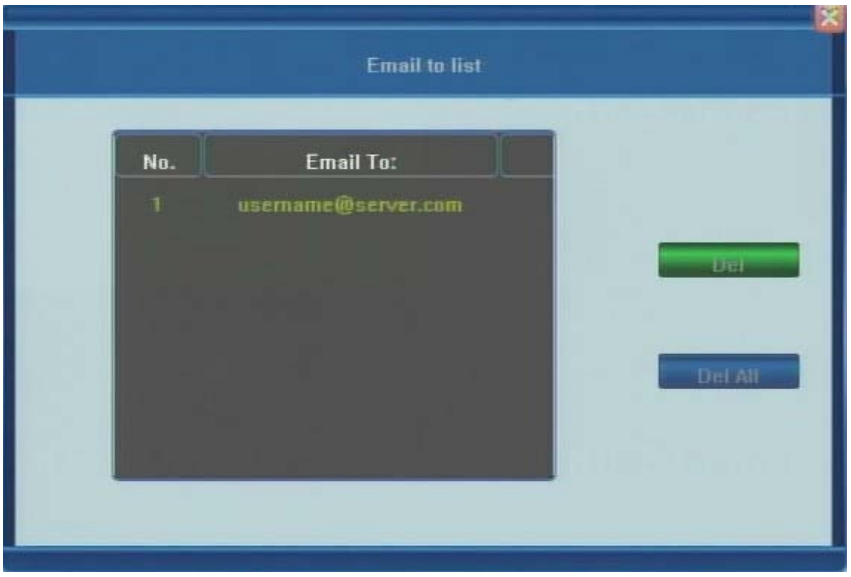


Note: Some systems have a default email account from which notification emails will be sent. Make sure the default email address is in the Email Address Book or it will be treated as spam.

Enter the email address for the person who needs to receive the email. Enter the server email address from which the email will be sent.

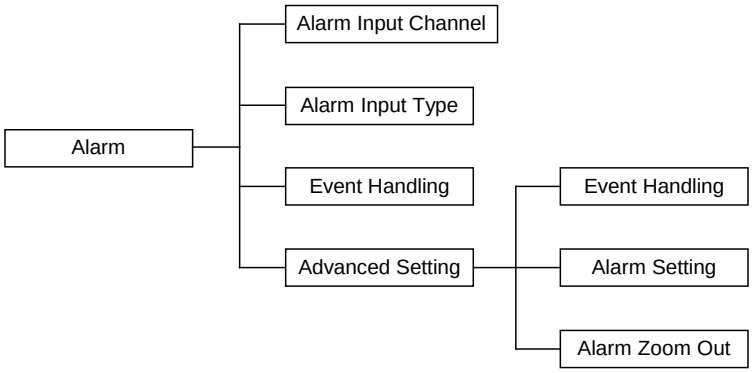
Click the View button to access the list of email addresses who will receive the email. Click the DEL button to remove an address from the list. Click DEL ALL to remove all

addresses from the list. Click OK to save the changes. Click CANCEL to exit the window without saving.

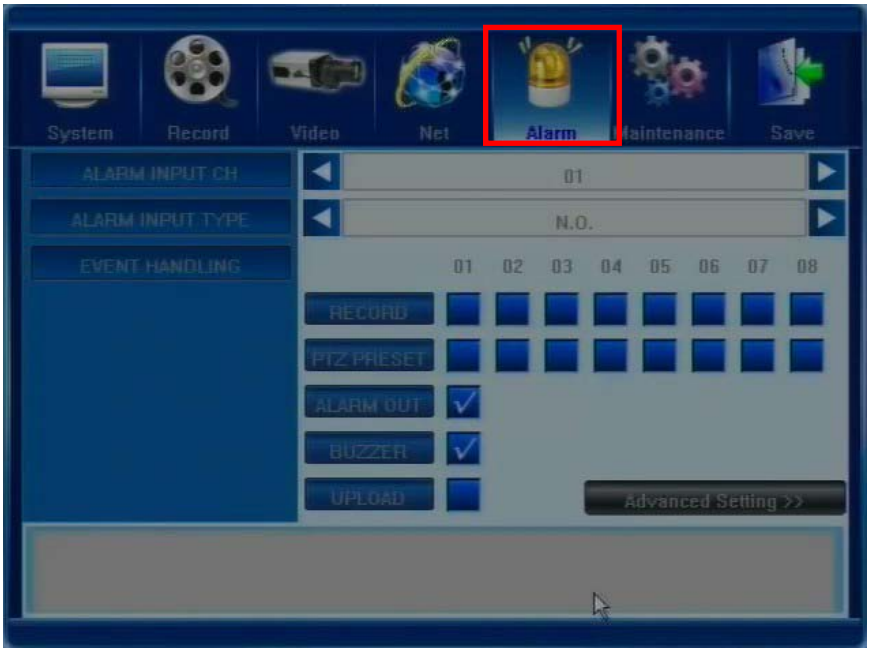


ALARM

The Alarm window provides access to four sub-menus used to set the alarm functions. A section describing each sub-menu and their available options follows.



Click the Alarm button on the System Configuration menu to access the Alarm Settings sub-menu. The administrator uses this window to define how the DVR will respond to various alarms based on the alarm inputs and adjust alarm input/output settings.


System
Record
Video
Net
Alarm
Maintenance
Save
ALARM INPUT CH
01
ALARM INPUT TYPE
N.O.
EVENT HANDLING
01 02 03 04 05 06 07 08
RECORD
PTZ PRESET
ALARM OUT
BUZZER
UPLOAD
Advanced Setting >>

ALARM INPUT CHANNEL

Click the arrow button to select an alarm input channel, view/change the alarm configurations, and set up each or all cameras (options: 01, 02, 03, 04, or ALL).

ALARM INPUT TYPE

Select the type of alarm input for the previously selected channel (options: N.O - Normally Open and N.C. - Normally Closed).

N.O.	Normally Open – in the normal state, the sensor device is kept under constant low voltage. If output voltage changes from low to high, an alarm is triggered.
N.C.	Normally Closed – in the normal state, the sensor device is under constant high voltage (maximum 5V DC). If output voltage changes from high to low, an alarm is triggered.

EVENT HANDLING

The Event Handling options are:

RECORD	Select the channel(s) that will start recording when an alarm is triggered.
PTZ PRESET*	Select the PTZ behavior for the channels when an alarm is triggered. Only preset point 1 can be triggered (Multiple channels can be selected.)
ALARM OUT	Set the triggered alarm output (ON or OFF).
BUZZER	Set the internal buzzer behavior when an alarm is triggered (ON or OFF).
UPLOAD	Set the option for sending information about an alarm.

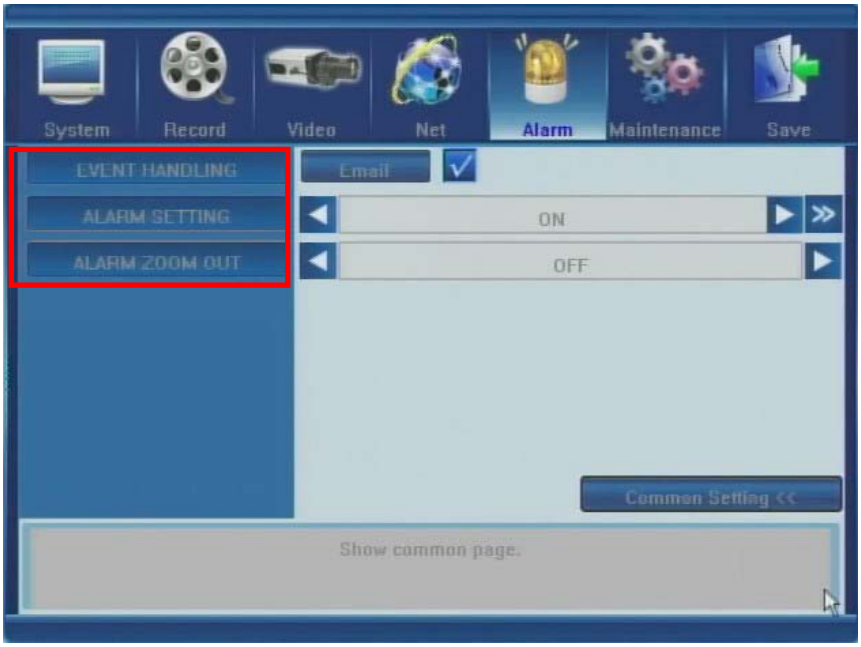
Note 1: Set up the record schedule in Record Schedule before setting the alarm triggered record.

Note 2: For alarm triggered PTZ, make sure the preset point is set and the correct PTZ channel number is selected.

* Cameras supplied with 8800 system are not equipped with PTZ feature.

ADVANCED SETTINGS

The Advanced Settings menu has three options: Event Handling, Alarm Setting, and Alarm Zoom Out.

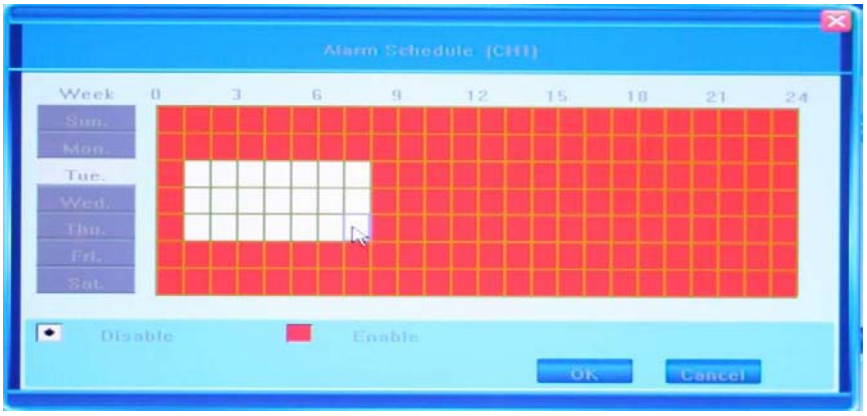


EVENT HANDLING

Select to send email (checkbox) when an alarm is triggered.

ALARM SETTING

Click the arrow key to turn the Alarm Setting ON or OFF. Alarm Setting allows for manual setup of an alarm schedule.



Click the >> button to access the Alarm Schedule window. The cells represent the days of the week from Sunday to Saturday (vertically), and the hours of the day from 0 to 24 (horizontally).

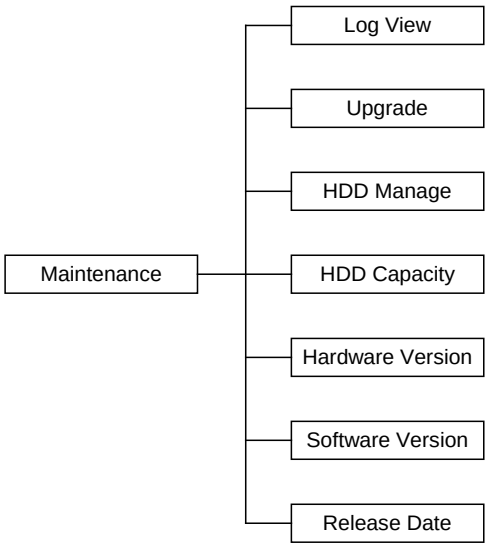
Click on individual cells or click and drag multiple cells to highlight the time span. Click the day of the week to highlight a 24-hour time span for that day (white = time when alarm is disabled; red = alarm is enabled). Click OK to save the changes. Click CANCEL to ignore the changes.

ALARM ZOOM OUT

Click the arrow key to select the Alarm Zoom Out (options: 1–10 or OFF).

MAINTENANCE

The Maintenance window provides access to seven sub-menus used to set the maintenance functions. A section describing each sub-menu and their available options follows.



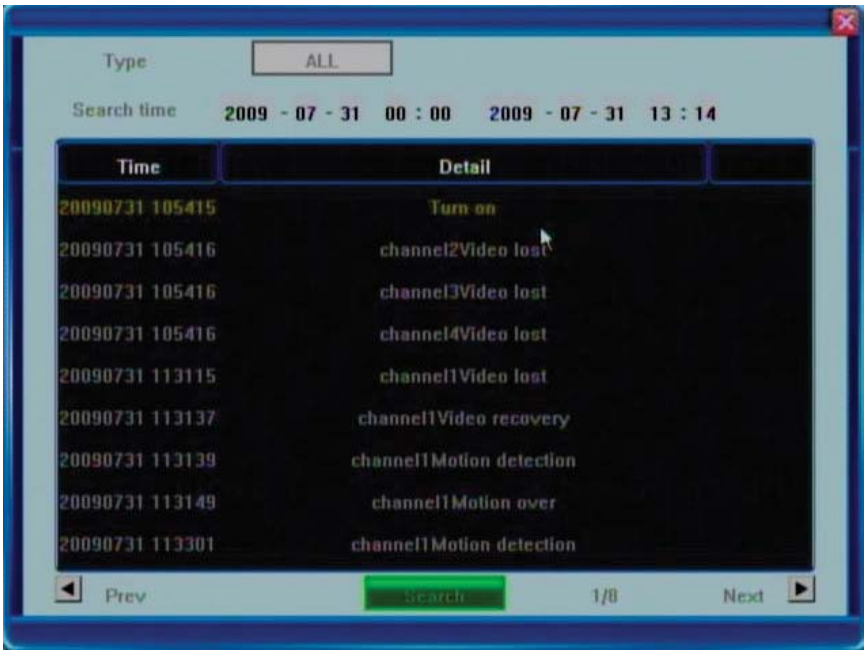
Click the Maintenance button on the System Configuration menu to access the Maintenance sub-menu to view system and event logs, versions of software and hardware, and to work with the HDD settings.

LOG VIEW

Click the >> button to open the Log window. In the Type field (options: All, Operation, Exception, and Alarm). In the Search Time field, enter the search date and time for the log.

Click the SEARCH button to display the desired log(s). It may take several minutes to populate the list depending on the size and number of logs. The first column is the start time of an event in the YYYYMMDD HHMMSS format. The second column is the description of the events.

If multiple logs do not fit on one window, click the PREV (Previous) or NEXT button at the bottom of the window to move between windows.



Note: The maximum number of entries currently supported is 3000. When the database is full, the overwrite function activates and the earliest entry is replaced with the newest one.

UPGRADE

Click the >> button to view the upgrade(s) available for the DVR software. Upgrades are received from a USB drive and IE Remote Software. Before upgrading, make sure the USB device is connected properly and the upgrade application has been copied into the USB drive root directory (i.e., F:\XXXXX.tar.gz). If no USB connection is found, a pop-up window indicates that a device is not available.

Follow the prompts to upgrade the software. After completing the upgrade, click CONFIRM to restart the system.

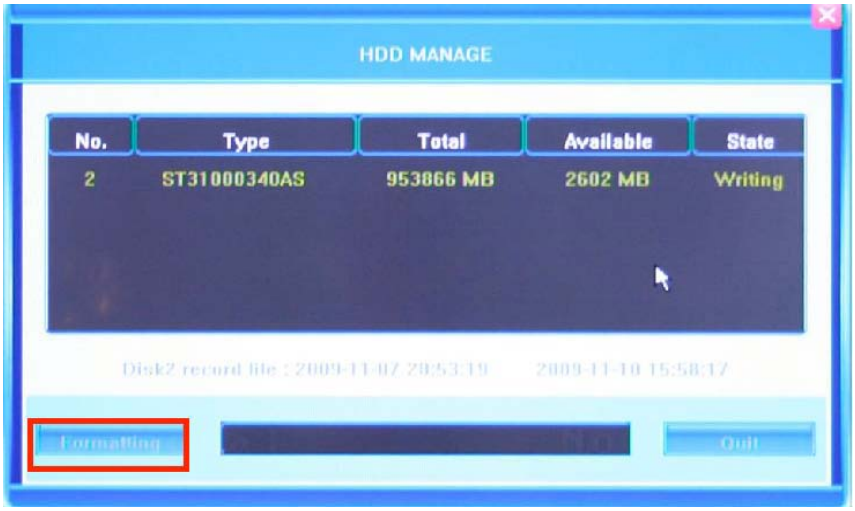
HDD MANAGE

Click the >> button to view the HDD Manage window used to format and set up the DVR hard-disk drive (HDD).

Note: Before recording video and audio feeds, the HDD must be formatted using the DVR. You must be logged in as Administrator to format the HDD.

Click the >> button in the HDD Manage field. If the DVR successfully detects the HDD, the information will display in a pop-up window: *Number*, *Type*, *Total Memory*, *Available Memory,* and *State*. These fields provide reference information and are not changeable.

To format the HDD, click the FORMATTING button. The status of the formatting process displays on the progress bar. Depending on the size of the HDD, formatting can take a long time. Click QUIT to stop the formatting process.



HDD CAPACITY

This field shows Total/Available HDD storage capacity. Discrepancies may exist due to system usage of the HDD.

HARDWARE VERSION

This field shows the current hardware version of the DVR.

SOFTWARE VERSION

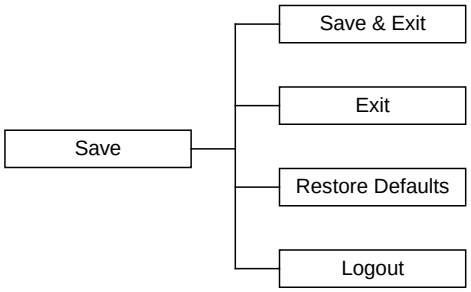
This field shows the current software version of the DVR.

SOFTWARE RELEASE DATE

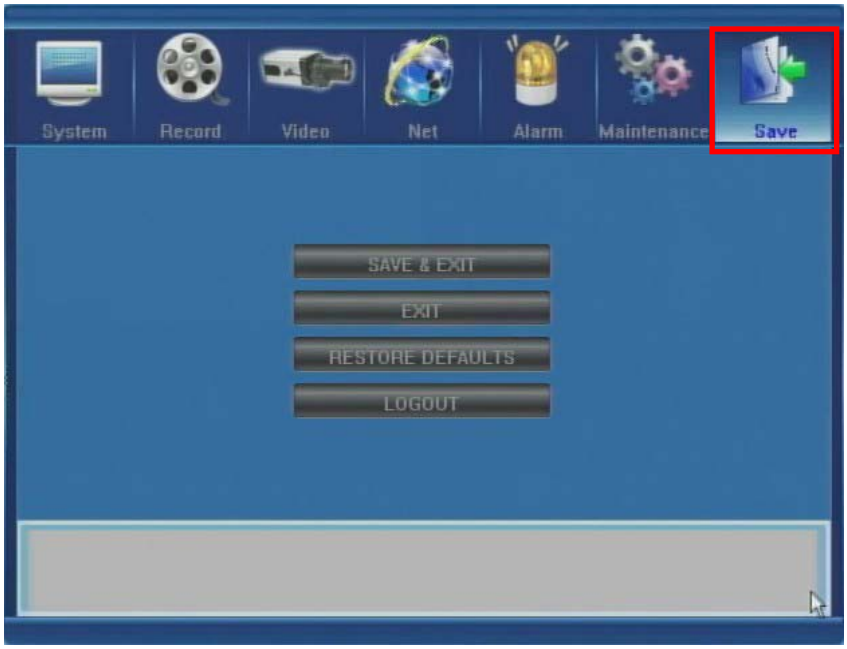
This field shows the release date of the current software version.

SAVE

The Save window provides access to four options. A section describing each sub-menu and their available options follows.



Click the Save Settings button on the System Configuration menu to access the Save Settings sub-menu.



SAVE & EXIT

Click this button to save all settings and exit the Save & Exit menu.

EXIT

Click the EXIT button to exit the menu without saving any changes.

RESTORE DEFAULTS

Click the RESTORE DEFAULTS button to reset all configurations to factory defaults. All user-entered, customized configuration settings (system language, time, camera, PAL/NTSC system, and network settings) will be overridden by the factory default settings.

LOGOUT

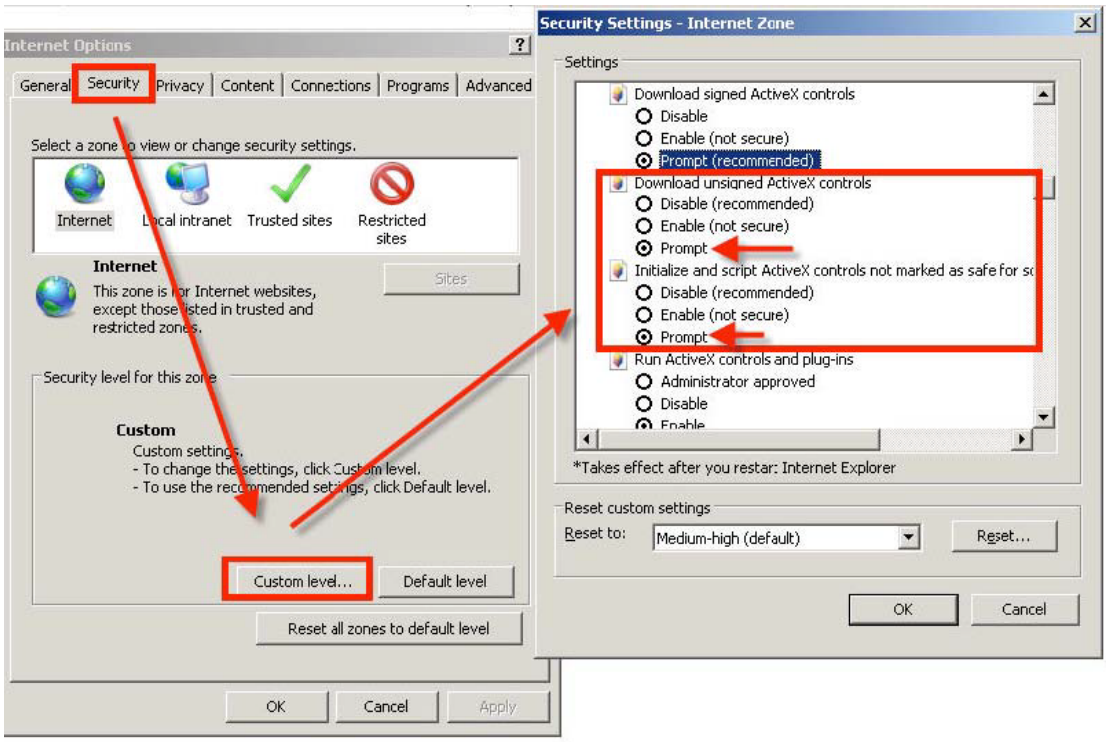
Click the LOGOUT button to log out of the system. Log in again (user name and password) to operate the DVR.

Web Browser Operation

This chapter provides information on using a web browser to monitor and configure the DVR remotely.

Enabling Download of an Unsigned ActiveX Control

The Model 4800 is designed to operate with Internet Explorer (IE). To access the DVR via a web browser. You will need to install a special ActiveX component for web access. If the IE settings prohibit downloading unsigned ActiveX components, enable this function manually as described below. The process may vary depending on the version of IE.



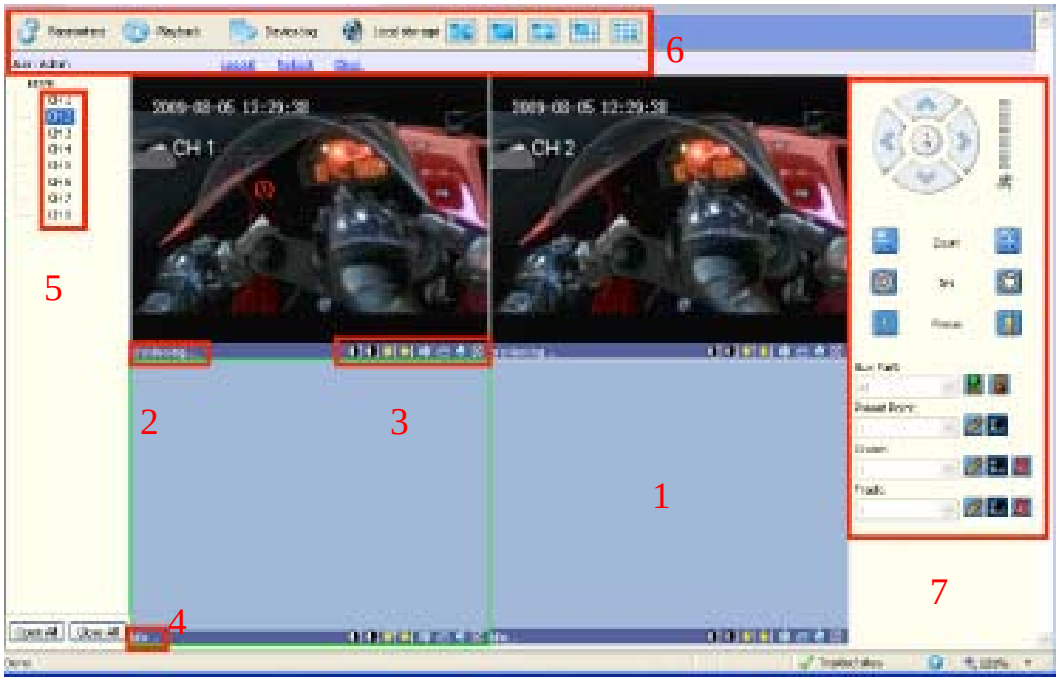
Open IE, access Tools Menu > Internet Options > Security. Click the Custom Level button and select Enable (or Prompt) in the “Download unsigned ActiveX controls”. Also, select Enable (or Prompt) in the “Initialize and script ActiveX controls not marked as safe for scripting” option.

WEB BROWSER LOGIN SCREEN

Open IE and input the IP address of the DVR in the address field. If the IP is correct and remote access is enabled on the DVR, the Login window will display.

Enter User Name and Password. Check the “Automatically Open All Previews” option to view all cameras after Login. Press RESET to reset entered values. Press LOGIN to display the main remote access window.

WEB BROWSER MAIN WINDOW



1 The central position of the window is the camera view. If you selected "Automatically Open All Previews" at Login, all available camera feeds display. A one-camera view displays by default with live feed. (There may be up to a two second delay from actual live events depending on the connection.) Recorded information can be accessed from the Playback menu.

2 In the bottom left corner of each individual camera view, is the status (e.g., previewing or idle). In the example, the camera is in preview mode.

3 The right bottom corner of each channel view has the camera view tools.

Increase/decrease image contrast.

Increase/decrease brightness.

Start/stop voice monitoring (icon turns green when recording).

Start/stop recording (icon turns green when recording and opens a dialog for local storage).

Take snapshot of the displayed image.

Close the window view (click on a channel in the channel list on the left to reopen the window).

4 The status of camera views with no video feed is indicated as idle.

5 Available Cameras list. Click on a channel to display this camera view. Press the buttons at the bottom of the camera list to Open All or Close All camera views.

6 Use the Tool Bar to adjust settings for remote access to the DVR.

Parameters: A comprehensive menu for adjusting most parameters, similar to the Main Menu on the DVR.

Talkback: Talk with anyone at the location of the DVR using the PC microphone and speakers.

Playback: Search and playback recorded files.

Device Log: View and export logs.

Local Storage: Set storage parameters.

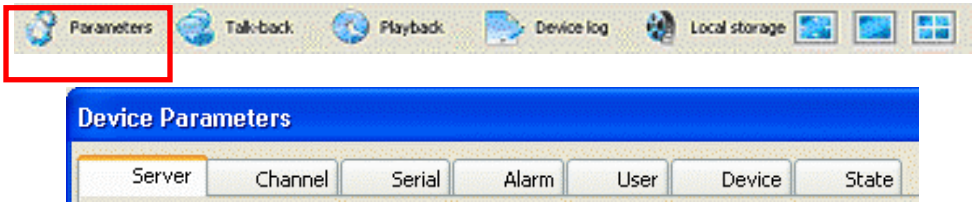
Note: If the network connection is interrupted or abnormal, the message "Hear beat lost, please check the network" *displays in the top right corner of the main window. After the network connection is recovered, the preview mode displays automatically.*

7 PTZ Control.*

TOOLS BAR

DVR PARAMETERS

Click PARAMETERS on the Tool Bar to open the Device Parameters sub-menu.

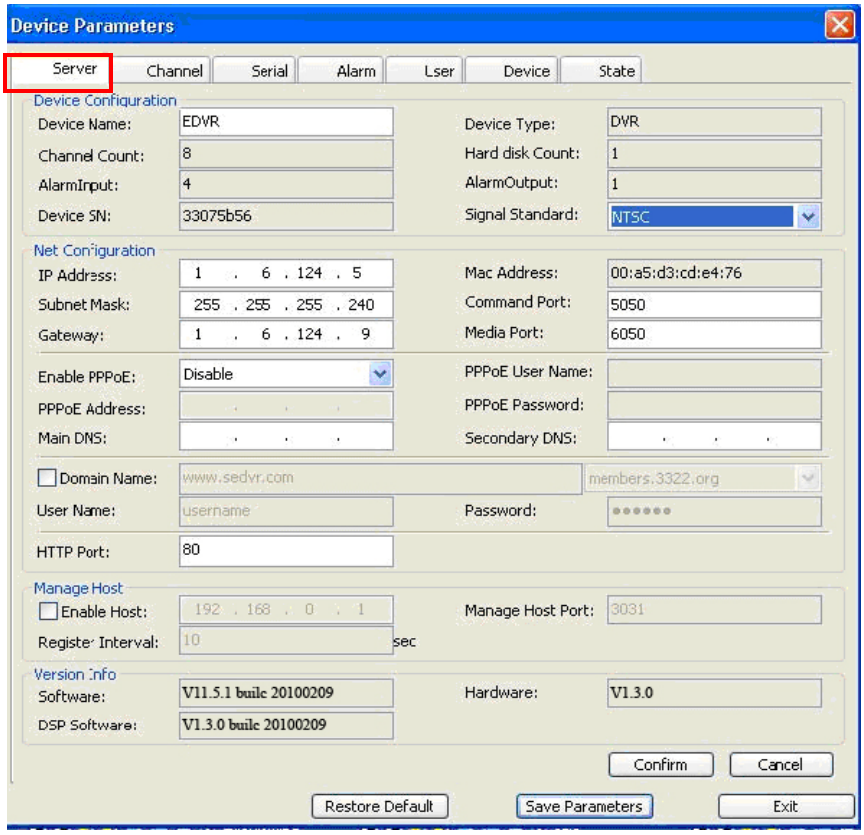


These settings are similar to those on the DVR, although the menu layout and logic better suit the PC configuration. (See Chapter 5, System *Settings* for information on the DVR parameters.) If a field is grayed, it is not changeable and is for reference only. If the field is bluish-green, you can adjust the value or choose the value from a drop-down menu.

SERVER

Click the Server tab to open the Server menu to adjust network settings. Most settings are self-explanatory and correlate to the settings on the DVR.

* Cameras supplied with 8800 system are not equipped with PTZ feature.



There are four subsections in the Server menu:

Device Configuration: Enter the device name and choose the Signal Standard (NTSC/PAL/SECAM). Values for Channel Count, Alarm Input, Device Serial Number, Device Type, Hard Disk Count, and Alarm Output are not changeable and provide reference information about the DVR.

Net Configuration: Enter network configuration parameters. Enable PPPoE has two options: Enable and Disable. If you enable this function, the related fields (PPPoE Address, PPPoE User Name, and PPPoE Password) are active. Checking the Domain Name (DDNS) option activates related fields: Domain Name (drop-down window with a list of available DDNS services), User Name and Password. HTTP Port and Mobile Port are changeable and their default values are 80 and 7050 respectively.

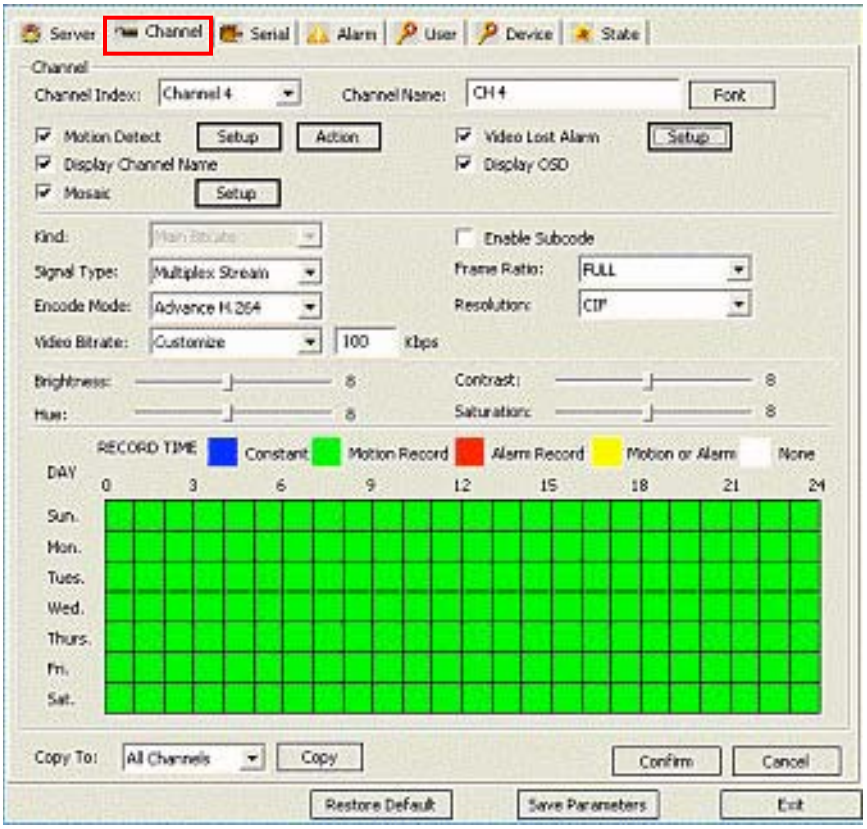
Manage Host: Check Enable Host to activate related fields: Host IP, Manage Host Port, and Register Interval.

Version Info: Non-changeable information fields: Software, Hardware, and DSP Software versions.

Click CONFIRM to save changes and exit. Click CANCEL to exit without saving changes. Click RESTORE DEFAULT to reset values to parameters before changes were made. Click SAVE PARAMETERS to save change. Click EXIT to close the window without saving changes.

CHANNEL

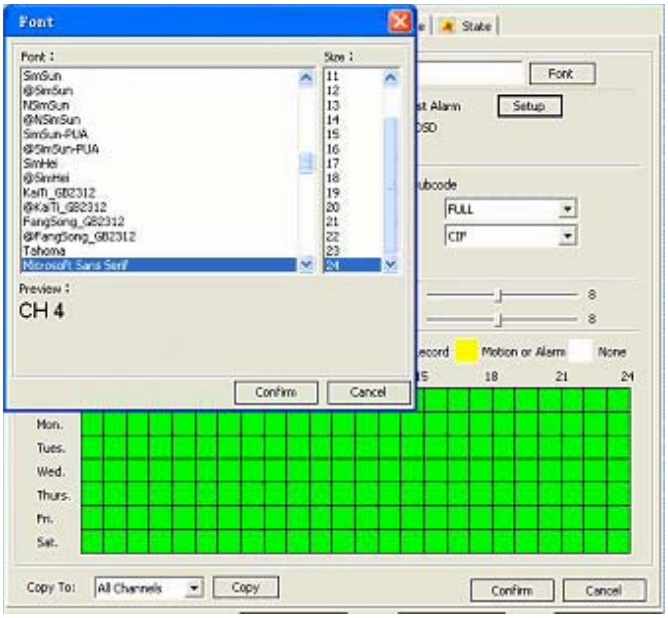
Click the CHANNEL tab to open the Channel menu and adjust settings for each individual channel.



Select a channel to review/change settings in the Channel Index option drop-down menu (channels 1 to 4). In the Channel Name field, type a custom name for each channel (e.g., “Front Door”).

FONT

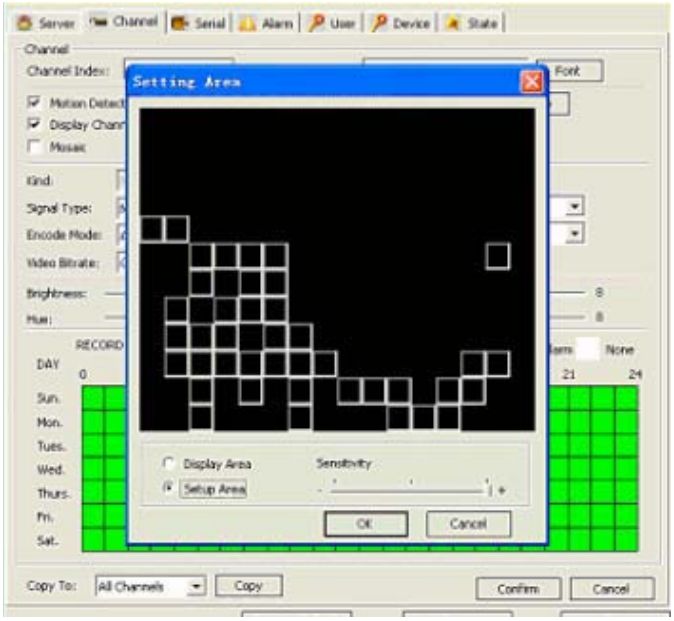
Click FONT to display a dialog window and modify the font size.



Check the Motion Detect box to initiate the motion detection feature on the DVR for the selected camera. Use the Setup and Action buttons to adjust the motion detection zone and the alarm type.

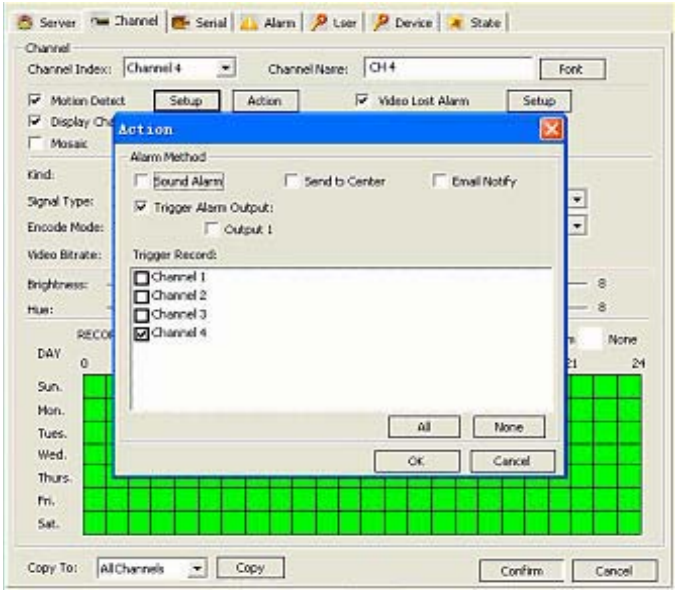
SETUP

Click SETUP to open a live feed window and indicate cells to be included for motion detection. Use the two checkboxes (Display Area and Setup Area) to view the video feed and indicate cells for motion detection. Adjust the sensitivity level using the three position slide scale (-/ mid / +).

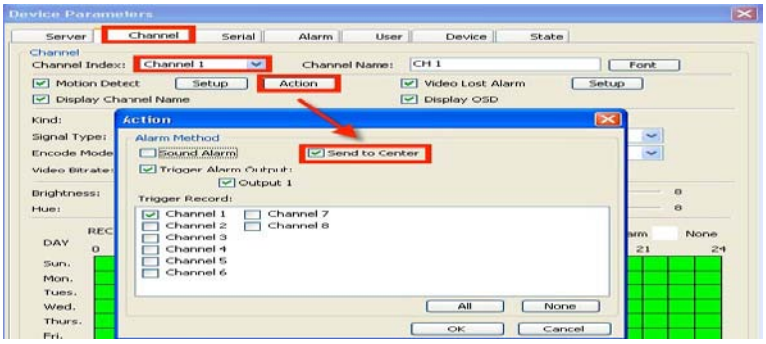


ACTION

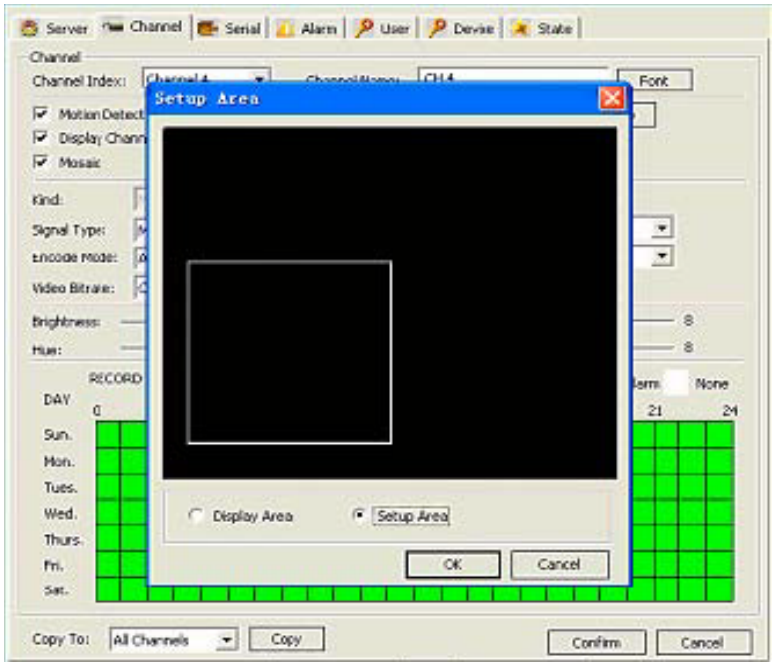
Click ACTION to open a pop-up window with method options when motion is detected: Sound Alarm, Send to Center, Email Notify. Check the Trigger Alarm Output to display the Output 1 checkbox. To choose which channel will start recording an alarm, check the appropriate boxes on the list under the Trigger Record option.



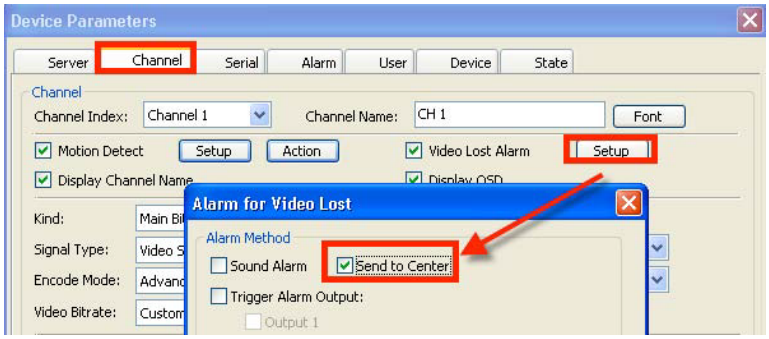
When the motion detection alarm is triggered, and the remote notification is activated, a message displays at the top right corner of the window with information such as: “Device Alarm: Motion Detection, Channel 1.”



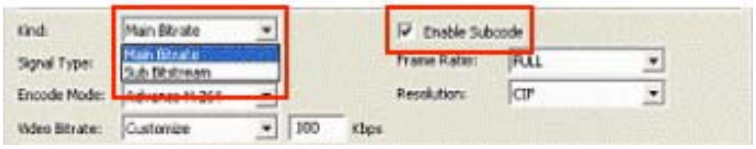
Check the Mosaic/Privacy Mask box and use the Setup button to access the Setup Area window.



Check the Video Loss Alarm box to manage alarm options on Video Loss. Click SETUP to display the Alarm for the Video Loss window and modify the settings. Choose the Alarm Method for Video Loss: Sound Alarm, Send to Center, Email Notify, or Trigger Alarm Output (enables Output 1).



Kind: Works with Enable Subcode, and when activated, has two options: Main Bitrate and Subbitstream. Use this function to allow a lower network bit stream for slower network connections or computers.



Signal Type: Dropdown menu (options: Video Stream and Multiplex Stream).

Encode Mode: Dropdown menu (option: Advance H.264).

Video Bitrate: Dropdown menu (options: Best, Good, Better, Normal, and Customize). If you choose Customize, enter the desired value in Kbps in the field to the right.

Frame Ratio: Dropdown menu (options: FULL and 1 to 25).

Resolution: Dropdown menu (options: DI, HDI, and CIF).

Brightness, Hue, Contrast, and Saturation: Adjust values on sliding scales ranging from 1 to 16 (by default each of these values is set to 8).

The Channel window has a table for setting an event-driven scheduled recording (similar to the Record Schedule function on the Record Tab of the DVR Main Menu). This is a weekly recording schedule for various kinds of events Sunday through Saturday on a 24-hour basis. Week days are represented vertically and the hour line runs horizontally from 0 to 24 hours. One cell stands for one hour. Color-coded values denote situations where the DVR will start recording:

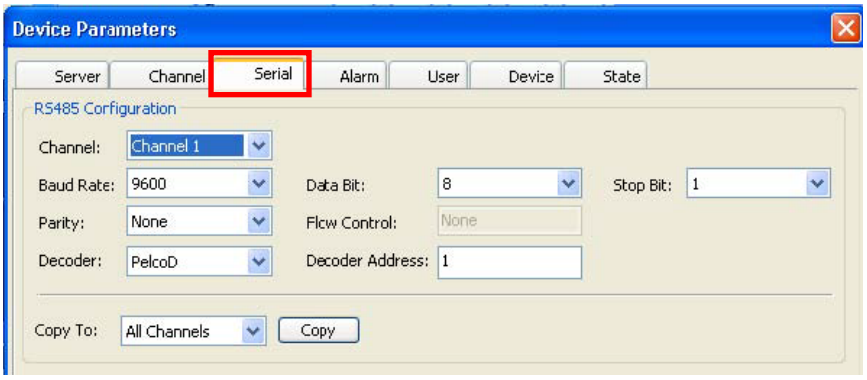
Blue	Constant recording	Recording full-time.
Green	Motion Record	Recording triggered by motion detection.
Red	Alarm record	Recording triggered by an alarm.
Yellow	Motion or alarm	Recording triggered by both alarm and motion detection.
White	No recording	No recording performed during this time

Use Copy To options to select All Channels, or Channels 1 through 4 individually. Click COPY to copy settings from the current channel to All or specified channel(s).

Click CONFIRM to save changes and exit. Click CANCEL to exit without saving changes. Click RESTORE DEFAULT to reset values to parameters before changes were made. Click SAVE PARAMETERS to save change. Click EXIT to close the window without saving changes.

SERIAL

Click the SERIAL tab to open the Serial menu to adjust settings related to any serial devices connected to the DVR (e.g., PTZ Cameras).



The RS485 Configuration settings are:

Channel: Dropdown menu (options: All Channels or Channels 1 to 4).

Baud Rate: Dropdown menu (options: 1200, 2400, 4800, or 9600).

Parity: Dropdown menu (options: None, Odd, or Even).

Decoder: Dropdown menu (options: Samsung, Panasonic, PelcoD, PelcoP, etc).

Data Bit: Dropdown menu (options: 4 to 8).

Flow Control: Currently inactive field with the default value None

Decoder Address: Enter the PTZ* address (default value: 1)

Stop Bit: Dropdown menu (options: 1, 1.5, or 2).

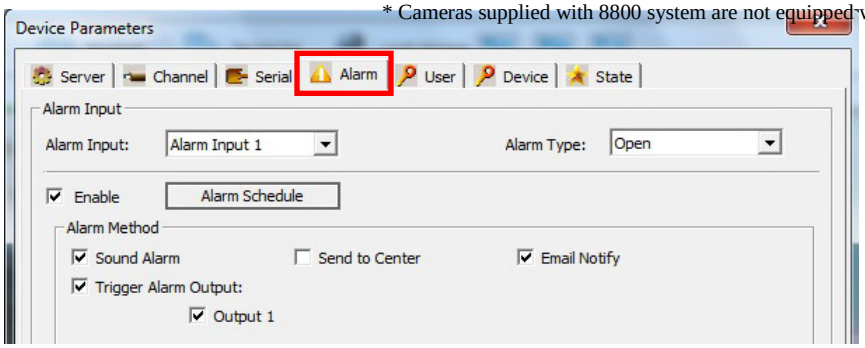
Copy To: Dropdown menu (options: All Channels or Channels 1 to 4).

Click COPY button to copy settings from current channel to All or specified channels. Click CONFIRM to save changes and exit. Click CANCEL to exit without saving changes. Click RESTORE DEFAULT to reset values to parameters before changes were made. Click SAVE PARAMETERS to save change. Click EXIT to close the window without saving changes.

ALARM

Click the ALARM tab to open the Alarm menu to adjust input/output settings for each channel.

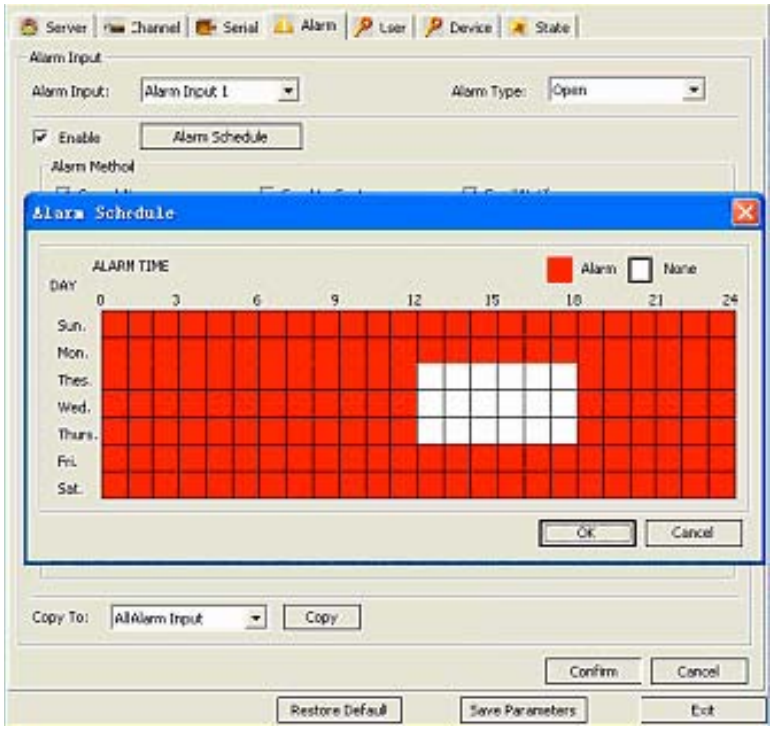
* Cameras supplied with 8800 system are not equipped with PTZ feature.



Alarm Input: Dropdown menu (options: Alarm Input 1 to 8).

Alarm Type: Dropdown menu (options: Open and Close, referring to N.O./N.C.).

Enable: Check the box to enable the Alarm Schedule. Click ALARM SCHEDULE to display a schedule window.

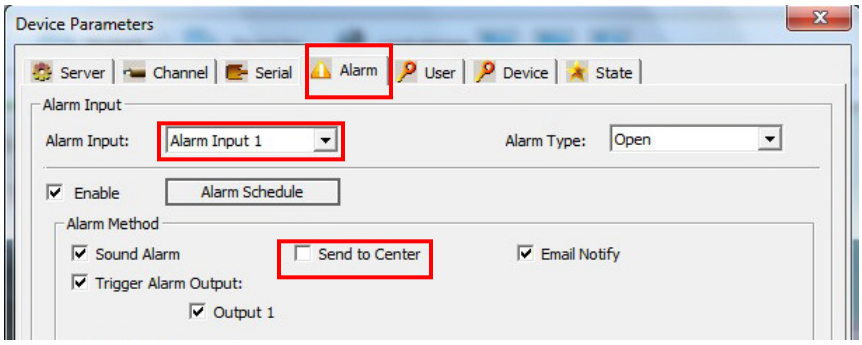


Use the Alarm Schedule window to enable/disable alarm output on a weekly basis. The table represents days of the week (Sunday to Saturday vertically) and hours of the day (0 to 24 horizontally). Color encoding has two options: white = alarm is disabled, and red = enabled alarm.

To mark the time cells, click on them individually or click and drag to highlight a larger time span. Click OK to save the changes. Click CANCEL to ignore the changes.

Sound Alarm: Check the box to sound an alarm when an alarm is triggered.

Send to Center: Check the box to send an alarm notification with the alarm input number, such as “Device alarm: IO alarm, IO input X” when an alarm is triggered on the DVR.



Trigger Alarm Output: Check to display Output 1 checkbox.

Trigger Record: Choose which channels will start recording after an alarm is initiated (options: Channels 1 to 4, All, or None).

Joint Channel: Check the box to activate a PTZ* camera (if a channel is connected to a PTZ camera) upon alarm (options: All Channels or Channels 1 to 4).

Preset Point: Check the box to move associated PTZ* camera to Preset Point, using a dropdown menu with preset points.

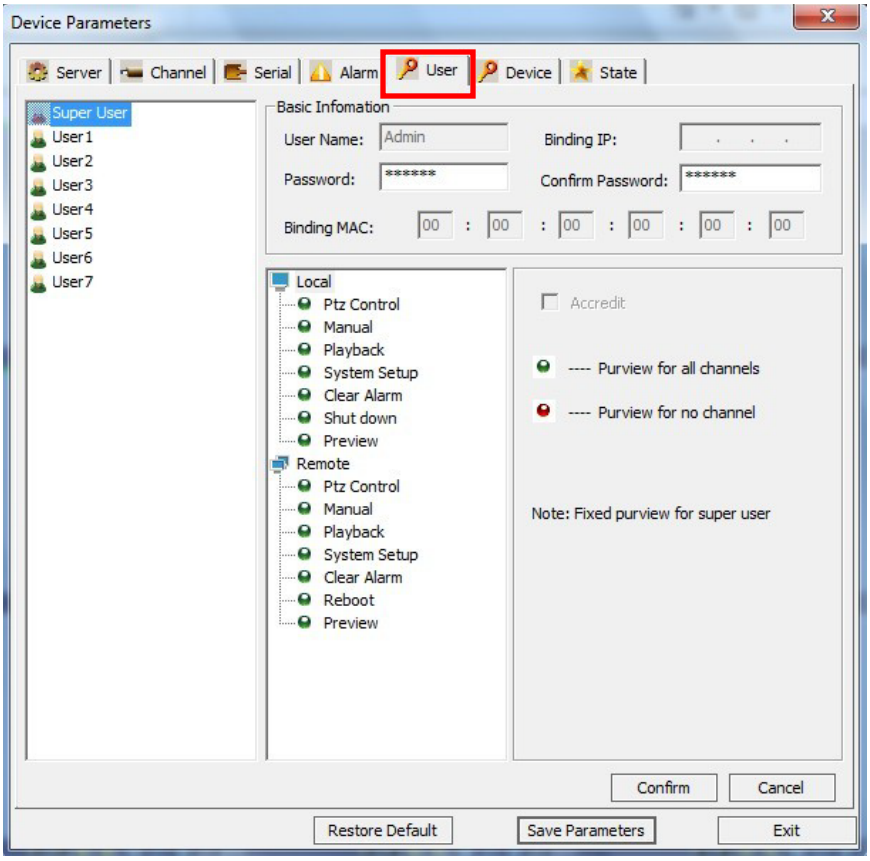
Copy To: Dropdown menu (options: All Alarm Input, and Alarm Input 1 through 4). Press COPY to copy settings from current alarm to All or a specified alarm input.

Click CONFIRM to save changes and exit. Click CANCEL to exit without saving changes. Click RESTORE DEFAULT to reset values to parameters before changes were made. Click SAVE PARAMETERS to save change. Click EXIT to close the window without saving changes.

* Cameras supplied with 8800 system are not equipped with PTZ feature.

USER

Click the USER tab to open the User menu to adjust user account and authority settings.



List: List of available users.

User Name: User name.

Binding IP: Indicates Binding IP (static IP) or Binding MAC to restrict access to the DVR from remote locations. The user can connect to the DVR only from a specific IP address or PC, and not from any other IP or PC.

Password, Confirm Password: Use to change user/administrator passwords.

Options: List of options available to a specific user. Some options are changeable (i.e., may be marked as accessible or given a restricted access), and some are preset and cannot be changed (Admin may restrict access to certain features by the user).

Rights: The list of rights includes Local and Remote sub-sections. These functions are either on a local PC or on the remote DVR. Both sub-sections contain identical items, so a feature may be allowed on the DVR but inaccessible on the local PC.

Features: The features are PTZ Control, Manual (Recording), Playback, System Setup, Clear Alarm, Shut down, and Preview (Live Viewing). Each item is color coded, showing functions available to a specific user. The codes are explained in

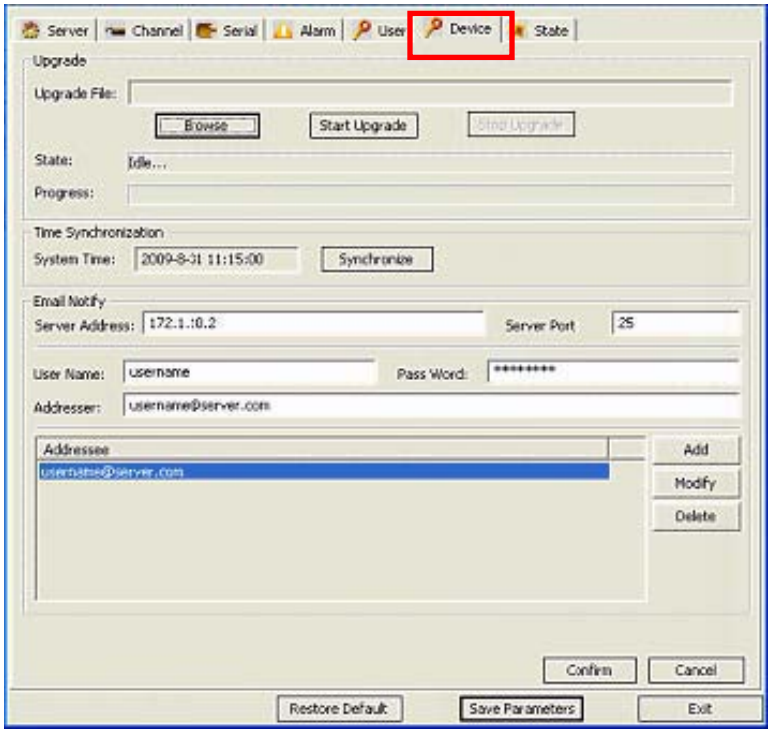
the legend on the right: green = Preview for all channels, and red = Preview for no channel.

Accredit: Check box allows the Administrator to permit a user specific functions (enabled is marked in green) or not to permit (disable marked in red). If a box is not checked, the function is inactive.

Click CONFIRM to save changes and exit. Click CANCEL to exit without saving changes. Click RESTORE DEFAULT to reset values to parameters before changes were made. Click SAVE PARAMETERS to save change. Click EXIT to close the window without saving changes.

DEVICE

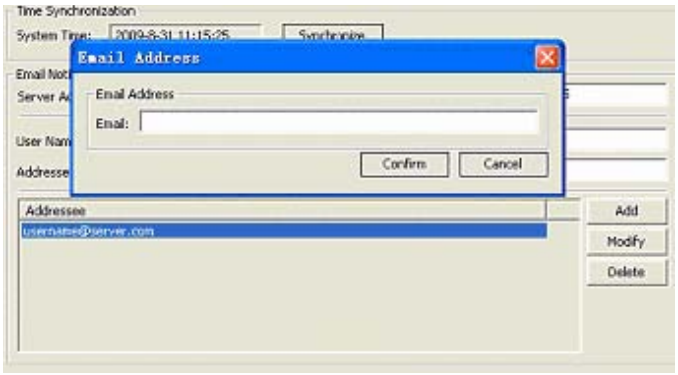
Click the Device tab to open the Device Parameters menu for firmware upgrades and time synchronization.



UPGRADE

The Upgrade subsection offers options for finding a file to upload. Click BROWSE to display an “Open File” window. Select the file and click START UPGRADE (click STOP UPGRADE to stop). The State field shows the status of the upgrade (Idle if not upgrading). The Progress Bar shows the current upgrade process.

Time Synchronization adjusts the system time in the YYYY-M(M)-D(D) HH:MM:SS format. Click SYNCHRONIZE to sync the system time to local PC time.



EMAIL NOTIFICATION

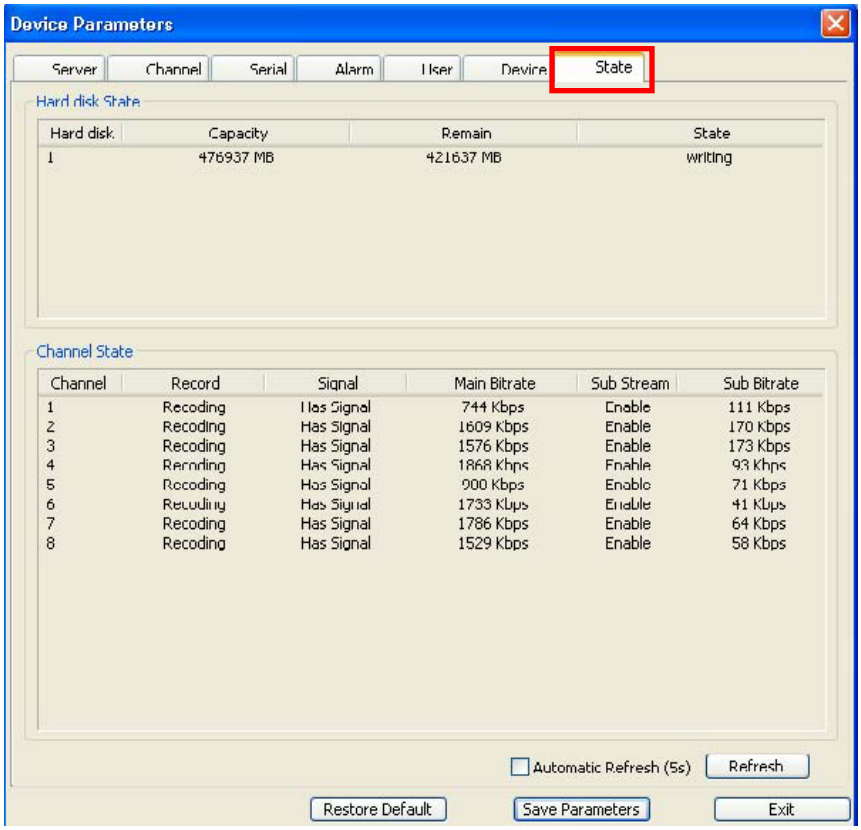
Email Notify is similar to that present in the Net tab of the DVR settings (see Chapter 5, *Email Settings*). You can indicate multiple email addresses of the people who should be notified in case of an alarm, and the sender’s details. Indicate Server Address and Server Port, as well as User Name, Password, and Email Address of the Addresser (Sender).

The list of Addressees (Recipients) can be populated and altered using the Add, Modify, and Delete buttons.

Click CONFIRM to save changes and exit. Click CANCEL to exit without saving changes. Click RESTORE DEFAULT to reset values to parameters before changes were made. Click SAVE PARAMETERS to save change. Click EXIT to close the window without saving changes.

STATE

Click the State tab to view system information. All items are for reference only.



Hard Disk State: Information on the number of available HDDs, their capacity, available space, and state (idle, writing, etc.).

Channel State: Information for each active channel (recording state, signal, main bit rate value, sub stream state for the channel, and sub bit rate value).

Automatic Refresh: Check box to keep current with changing values; data is refreshed every five seconds. Alternatively, click REFRESH to renew data and view the latest information.

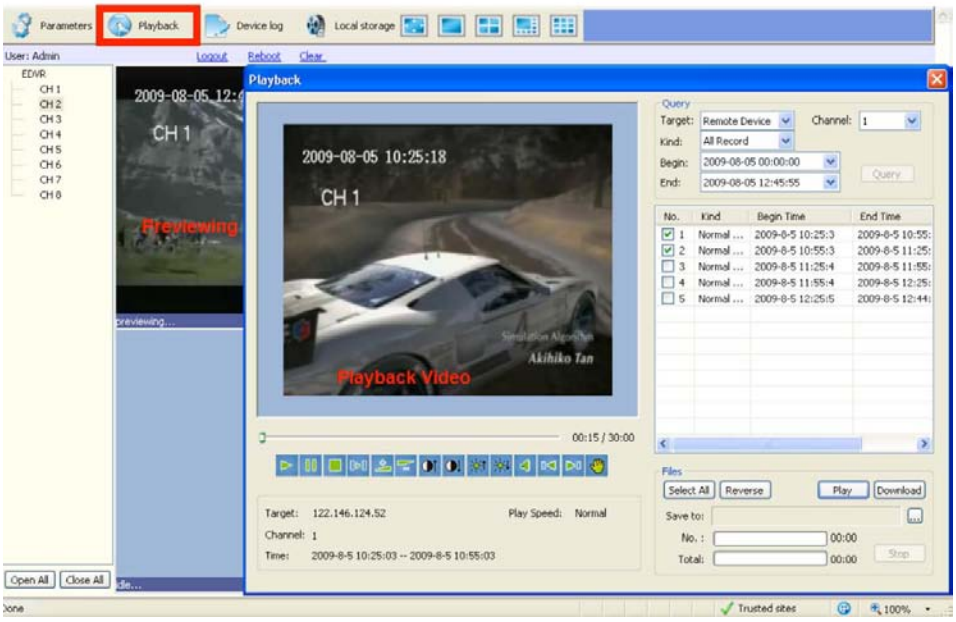
Click RESTORE DEFAULT to reset values to parameters before changes were made. Click SAVE PARAMETERS to save change. Click EXIT to close the window without saving changes.

TALKBACK

Click the TALK-BACK tab on the Tool Bar to have a live audio conversation with anyone at the location of the DVR using the PC microphone and speakers.

PLAYBACK

Click the PLAYBACK tab on the Tool Bar to view recorded files stored on the PC or on the DVR.



On the Playback window, the left half contains the controls, and the right half provides options for working with recorded files.

Target: Dropdown menu (options: Remote Device (DVR) and Local Host (PC).

Channel: Dropdown menu (options: Channels 1 to 4).

Kind: Dropdown menu (options: All Records, Normal Record, Triggered by Alarm and Motion Detection).

Begin: Dropdown menu for recording start time (format: YYYY-MM-DD HH:MM:SS).

End: Dropdown menu for recording end time of recording (format: YYYY-MM-DD HH:MM:SS).

SEARCH

Click SEARCH to perform a query. (It may take a while depending on the number of records and type of connection requested.)

No.: Number of the files in order.

Kind: Description of the file (Normal Record, Alarm-Triggered, Motion Detection).

Begin Time: Time when the event started.

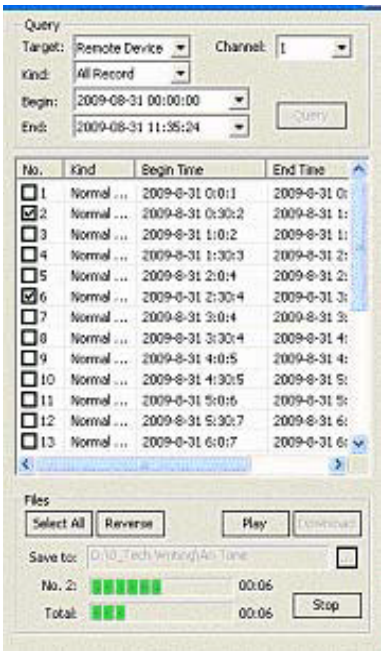
End Time: Time when the event finished.

Size (KB): Size of the recorded file.

Click [...] to choose the destination in the Save To field.

DOWNLOAD

Click DOWNLOAD to save selected files.



The download progress for the file being saved displays on the No.X progress bar. The number is shown on the left of the bar and the time elapsed displays on the right. The Total Progress bar shows the overall download status when saving more than one file. Click STOP to stop the download.

To play a file, check the box in the No. column, or select all files by pressing the Select All button under the list of files. Reverse the selection by pressing the Reverse button.

Click PLAY to play the selected files in order on the left half of the window. A time line shows the elapsed time and the total time of the file.

Use the menu bar to control the playback of selected files.

Play

Pause

Stop

Frame by frame step (press Play to resume)

Fast forward (2X, 4X, 8X, 16X). From 16X gradually reduce speed using the Fast Rewind button.

Rewind (Normal, 1/2, 1/4, 1/8, 1/16). You cannot directly go back to Normal fast rewind. Use the Fast Forward button to return to Normal speed.

Decrease/increase contrast.

Decrease/increase brightness.

Mute sound.

Go to next/previous file in the playback list (available only when multiple files are selected).

Snapshot displays the local storage window under the control panel to view information about current file:

Target: IP address of the source file

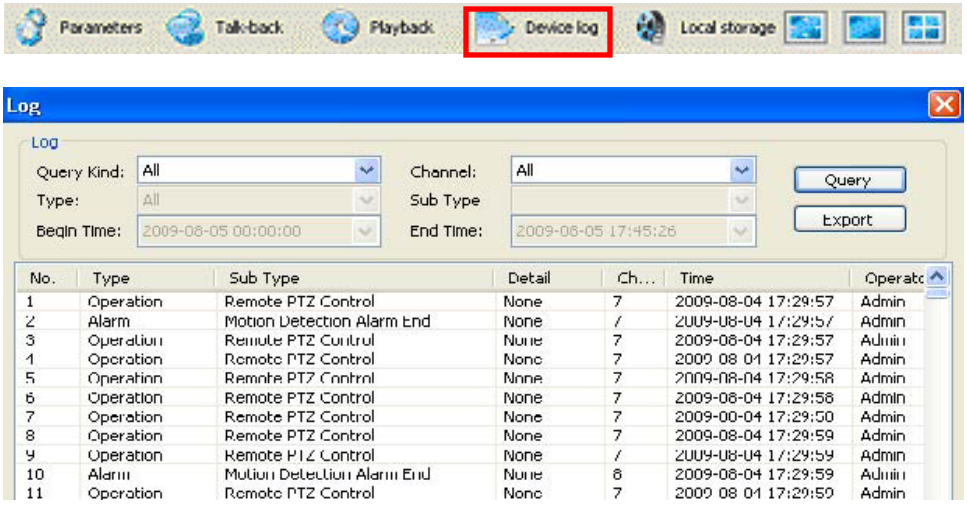
Channel: channel number from which the file was recorded

Time: time frame for the current file (Start/End) in YYYY-MM-DD HH:MM:SS format

Play speed: 2X, 4X, 8X, 16X

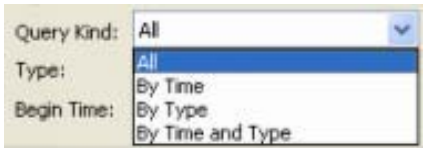
DEVICE LOG

Click the DEVICE LOG tab on the Tool Bar to view a log of recorded files.


Parameters
Talk-back
Playback
Device log
Local storage
Log
Log
Query Kind: All
Channel: All
Type: All
Sub Type
Begin Time: 2009-08-05 00:00:00
End Time: 2009-08-05 17:45:26
Query
Export
No. Type Sub Type Detail Ch... Time Operate
1 Operation Remote PTZ Control None 7 2009-08-04 17:29:57 Admin
2 Alarm Motion Detection Alarm End None 7 2009-08-04 17:29:57 Admin
3 Operation Remote PTZ Control None 7 2009-08-04 17:29:57 Admin
4 Operation Remote PTZ Control None 7 2009-08-04 17:29:57 Admin
5 Operation Remote PTZ Control None 7 2009-08-04 17:29:58 Admin
6 Operation Remote PTZ Control None 7 2009-08-04 17:29:58 Admin
7 Operation Remote PTZ Control None 7 2009-08-04 17:29:58 Admin
8 Operation Remote PTZ Control None 7 2009-08-04 17:29:59 Admin
9 Operation Remote PTZ Control None 7 2009-08-04 17:29:59 Admin
10 Alarm Motion Detection Alarm End None 8 2009-08-04 17:29:59 Admin
11 Operation Remote PTZ Control None 7 2009-08-04 17:29:59 Admin

Select the event logs you would like to view.

Query Kind: Dropdown menu (options: All, By Time, By Type, or By Time, and Type).

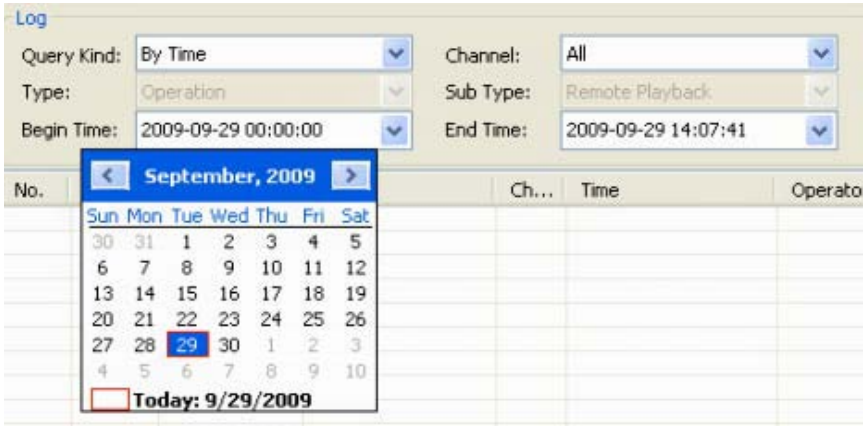


Channel: Dropdown menu (options: All or Channels 1 to 4).

ALL QUERY KINDS

If you choose to view All logs from all channels or one channel, all other options (Type, Sub-Type, Begin Time, and End Time) are inactive.

QUERY KIND BY TIME

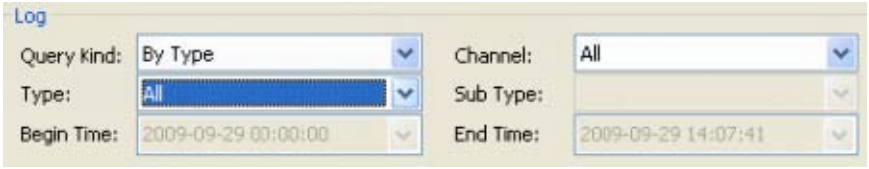


Select Query Kind by Time to view logs according to Time. The Begin Time and End Time fields are active, and the Type and Sub-Type fields are inactive.

Time is expressed in the YYYY-MM-DD HH:MM:SS format. When selecting the time frame for the desired logs, set up the start and end time by highlighting the element and changing it using the keyboard (or select the date and time from a drop-down calendar).

QUERY KIND BY TYPE

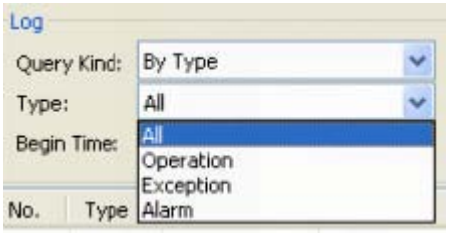
Select Query Kind By Type to activate view logs according to type. Depending on the selection, you can also modify the Sub Type values.



Four types are available: All, Operation, Exception, and Alarm.

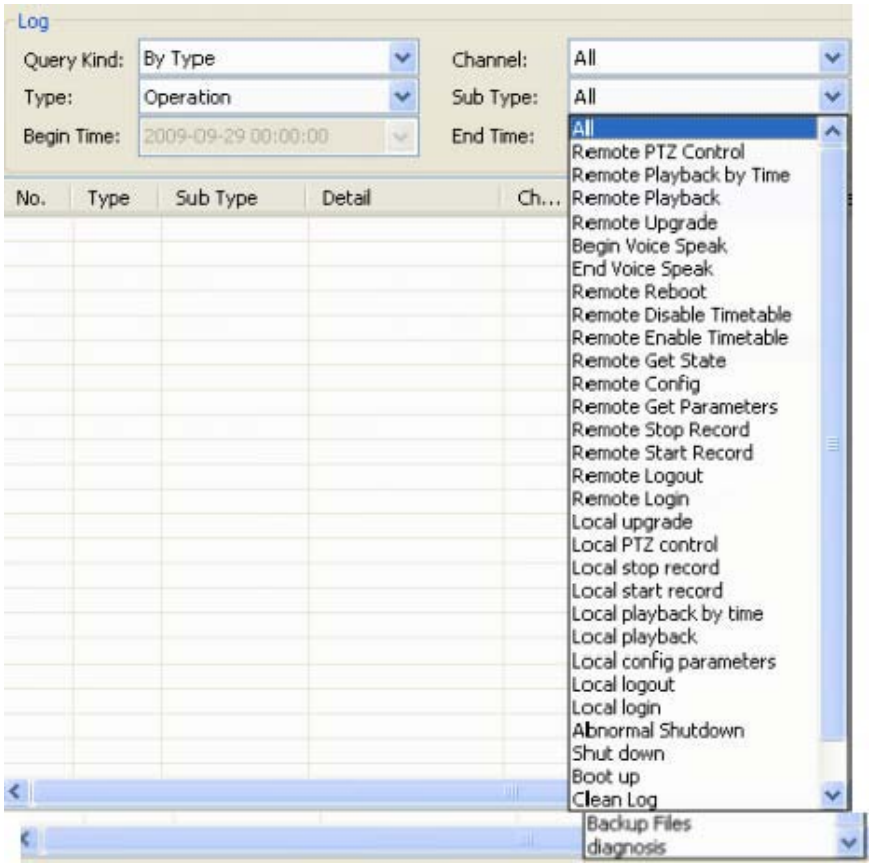
All

The subtype field is inactive.



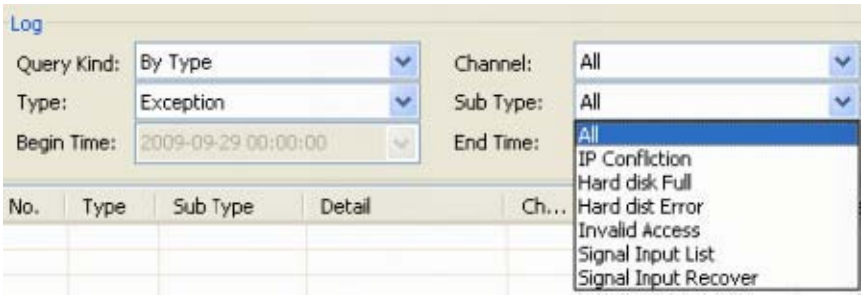
Operation

There are 32 subtype field options available.



Exception

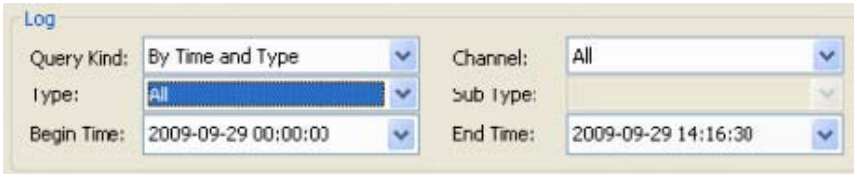
There are 7 subtype field options available.



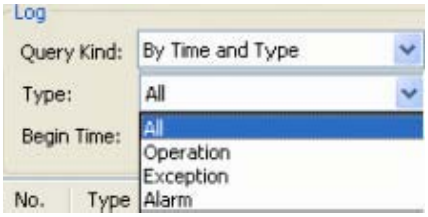
Alarm

There are 7 subtype field options available.

QUERY KIND BY TIME AND TYPE



This query combines Time and Type with the Begin and End Time.



Click QUERY to submit a request and view the log. (It may take several minutes depending on the number of entries and the connection.)

The resulting log list provides this information:

No.: In order of appearance

Type: Alarm/Operation

Sub Type: Motion Detection Alarm Begin / Motion Detection Alarm End / Remote PTZ* Control

Detail: None / Local Time Set / Local Graph Color / Local Encode Set / Local PTZ* Set / Local Common Set / Remote Net Set

Channel: 1 through 4

Time: Start time in YYYY-MM-DD HH:MM:SS format

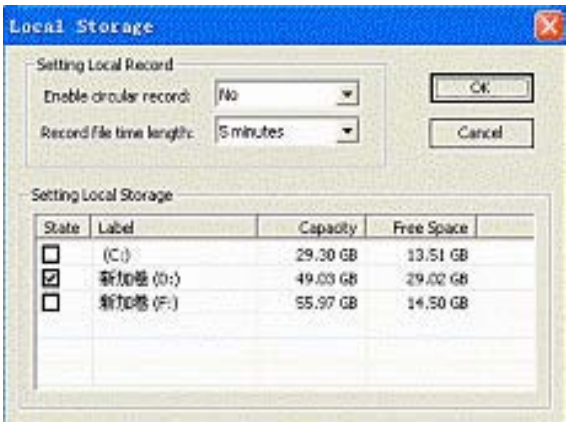
Operator: Name of User logged in when an event happened

Host: IP address

Click EXPORT to export logs in the HTML format. A dialog prompts for the destination to save the file.

LOCAL STORAGE

Click the LOCAL STORAGE tab on the Tool Bar to open a dialog window to define the PC storage location for saving live feed video files and captured photos.



Dropdown menu to select local storage on the PC (options: Yes/No)

Dropdown menu to indicate the recorded file time (options: 5, 10, 15, 30, or 60 minutes)

Set local storage drive (State, Label (disc or hard drive), Capacity, and Free Space)

* Cameras supplied with 8800 system are not equipped with PTZ feature.

SCREEN VIEW BUTTONS

Click to stretch one-camera view over the whole screen of the browser window; all control bars will be hidden

Highlight a screen and click to enlarge to single-view; all the menus will remain.

Click to display quad camera views; click in full screen mode (menus hidden) and the camera image will be 4 windows (menus shown).

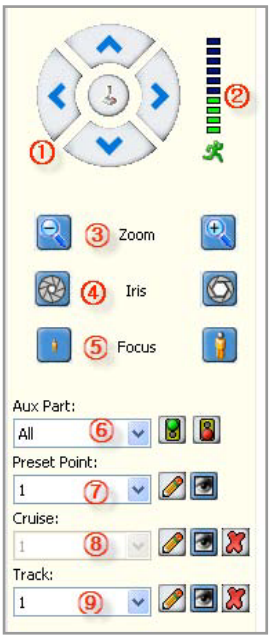
Double-click any window to view full-screen or hide/show menu modes.

PTZ Control Panel*

The PTZ control panel is located on the right of the browser window. Generally, the functions are the same as on the DVR and depend on the model of the PTZ camera used (refer to the PTZ user manual for more information.) See the table below for a general description of common features.

1	**Navigation Buttons**	Control the direction of the PTZ movement (see PTZ manual for scanning mode information).
2	**Speed**	Set the turning speed of PTZ camera.
3	**Zoom**	Click to zoom in/out.
4	**Iris**	Click to make the image brighter or darker (disabled if camera has automatic iris adjustment).
5	**Focus**	Click to focus-in/out (disabled if camera has automatic focus).
6	**Auxiliary**	Click to open/close auxiliaries including light, wiper, power, etc. (see PTZ user's manual for more information).
7	**Preset Point**	Set preset camera position, focus, zoom, and iris; assign numbers for easy access to the presets. To set point: 1. Select the preset number. 2. Adjust the camera direction, focus, iris, and zoom values. 3. Click the Set button. To call presets: 1. Select the preset number you want to call. 2. Click the Start button.
8	**Cruise**	Cruise is a running route of camera that passes through multiple presets. To set cruise: 1. Select preset number. 2. Click Set button. 3. Repeat steps 1 and 2 to add presets until all presets are complete. 4. Click Run button.

* Cameras supplied with 8800 system are not equipped with PTZ feature.



		To clear cruise: 1. Click the clear button.
9	**Track**	Track is a continuous running route of camera. To set a track: 1. Click the track button. 2. Move camera in the pattern you want it to run. 3. Click the track button again to finish setup. 4. Click the track button to run track and click again to stop running.

Mobile Phone Support

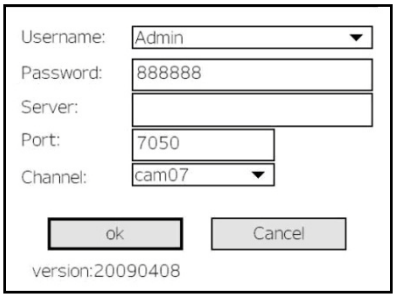
The Model 8800 DVR can transmit live feed from CCTV cameras to a mobile phone, so that you can access your surveillance system from virtually anywhere in the world. Currently, this feature is supported for phones with Windows CE Mobile, Symbian S60 3rd Edition OS, and the Apple iPhone.

WINDOWS MOBILE

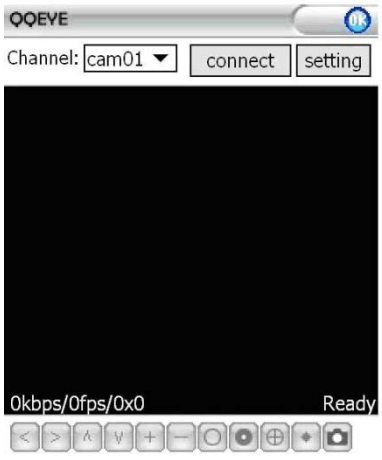
Install *xxx.cab* file from the installation CD on a Windows-based mobile phone. (See you phone user's manual for information on installing applications.)

Note: Prior to using the mobile phone feature, apply for Internet service for your mobile phone (e.g., 3G or 3.5G). Contact your mobile provider for details.

Find and execute the program QQEYE. Click SETTING to set up the IP address on the DVR (Server).



Input the value for the Port (default 7050) and choose the channel for streaming data from the dropdown menu. Click OK to save the settings. The main window of the Mobile Phone application offers a choice of channels, connect, and settings buttons.



Only one live feed channel can be viewed at a time on a mobile phone.

Note: Split mode and playback of recorded files is not yet available.

On-screen data provides information about current time (YYYY-MM-DD HH:MM:SS format), channel number, bit rate (Kbps), frame rate (fps), resolution, and status of the camera.

Channel Select the camera channel.

Connect Click to connect to the system and watch the live feed from a CCTV camera.

Setting Click to modify settings.

Control the direction of a PTZ* camera view

Zoom in/out

Iris control

Focus control

Snapshot

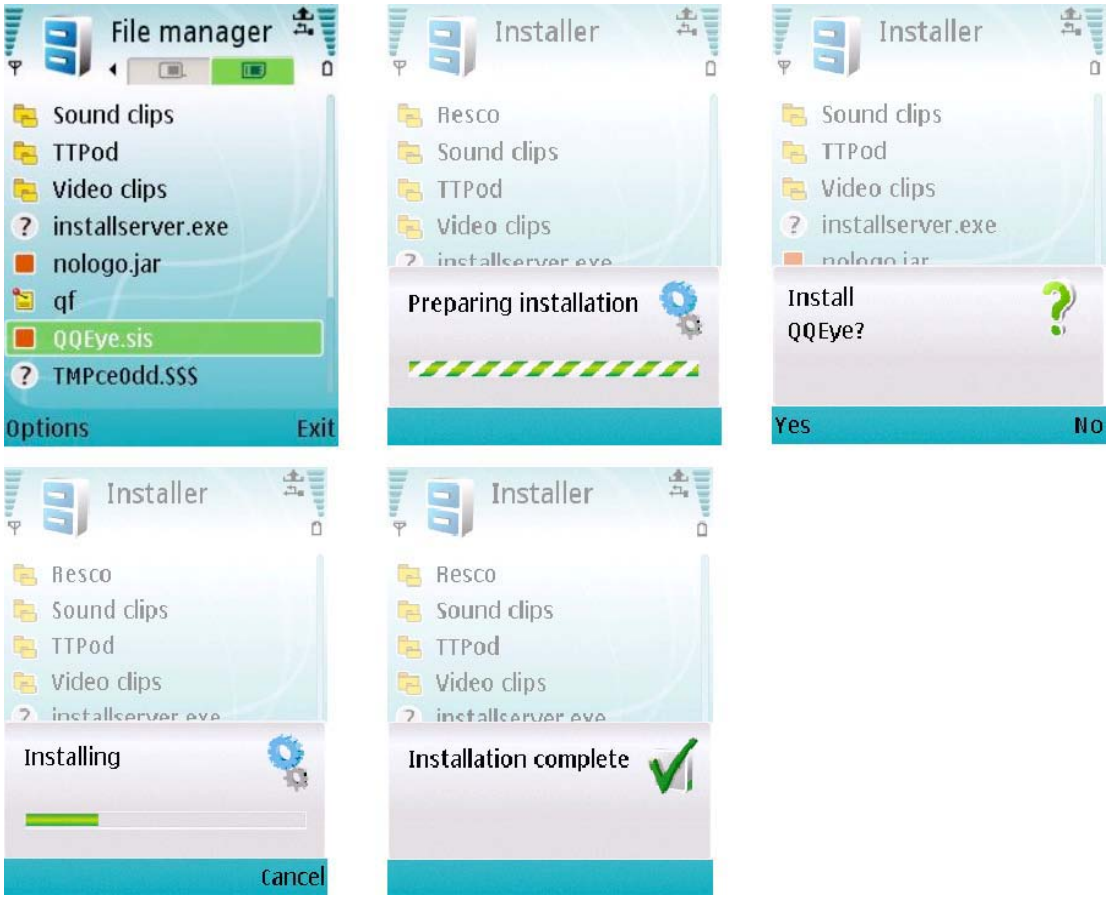
* Cameras supplied with 8800 system are not equipped with PTZ feature.

SYMBIAN S60 3RD PHONE

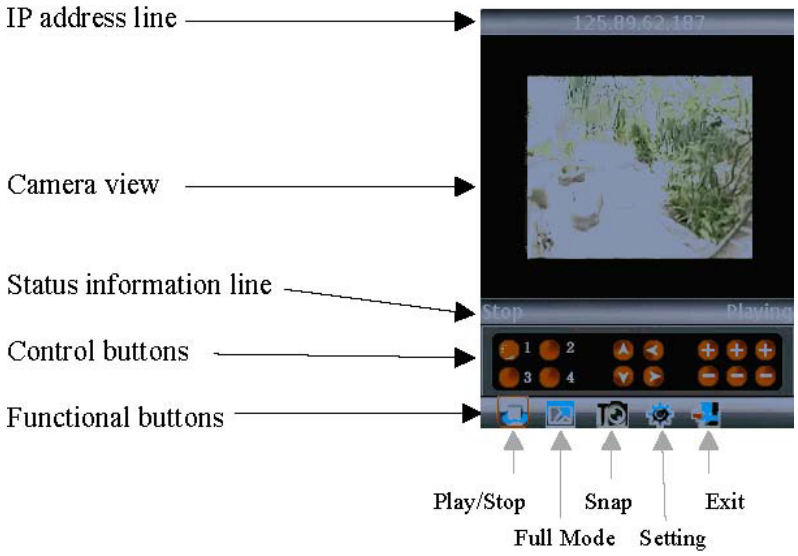
Install *xxx.sisx* file from the installation CD onto a Symbian S60 3rd Edition mobile phone. (Compatible mobile phones are listed in the next section.) For instructions on installing software on your mobile phone, refer to the mobile phone user's manual.

Note: Before using this feature, apply for Internet service (e.g., 3G or 3.5G) for your mobile phone. Contact your mobile service provider for details.

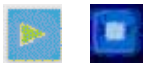
SAMPLE INSTALLATION PROCESS



After installation is complete, click the QQEye icon in the applications list on the mobile phone to open the menu window. To move between the buttons, use the navigation keys on the mobile phone.



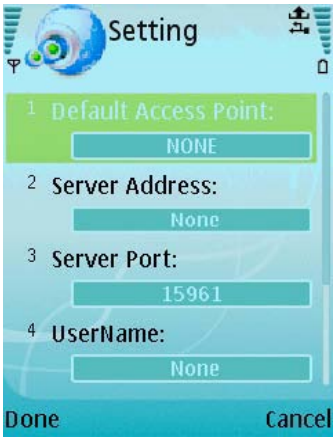
MENU BUTTONS AND PROGRAM INTERFACE

	Status Information Line	Name of the selected button (e.g., “Stop”) and status of the program (e.g., “Playing”)
	Channel Control Buttons	Select channels 1 to 4
	PTZ Camera Control Buttons*	PTZ camera direction
	PTZ Camera Control Buttons*	Zoom, focus, and iris controls in/out.
	**Function Buttons**	Play/Stop
	Full Mode Button	Display the camera feed in full-screen mode. All menus and buttons are hidden.
	Snap Button	Take a snapshot of the camera view.
	Setting Button	Bring up the connectivity setup screen.
	Exit Function Button	Exit QQEye

* Cameras supplied with 8800 system are not equipped with PTZ feature.

SETUP

The Symbian mobile phone must be configured for CCTV feed. Click the Setting icon and enter the preferred network access point, server address, server port, and user name.



Default Access Point	Enter the network through which you connect to the Internet. Options: None, WAP over GPRS, and mobile service providers *Note: If you choose None, you will be offered a list of available networks to choose from when you click ►.*
Server Address	DVR IP address
Server Port	7050
Username	Admin
Password	Default Admin password 888888

Click DONE to save and return to the main window. Click CANCEL to discard the changes.

SYMBIAN SUPPORTED MOBILE PHONES

Symbian mobile phones tested for remote access compatibility with Model 8800 DVR.

LG KT610	S60 3rd_FP1	10-Feb-08
LG KS10	S60 3rd_FP1	09-Oct-06
LG KT615	S60 3rd_FP1	30-Oct-08
Nokia 3250	S60 3rd_INIT	13-Sep-05
Nokia 5320 XpressMusic	S60 3rd_FP2	22-Apr-08
Nokia 5500 Sport	S60 3rd_INIT	09-May-06
Nokia 5630 XpressMusic	S60 3rd_FP2	10-Feb-09
Nokia 5700	S60 3rd_FP1	29-Mar-07
Nokia 5730 XpressMusic	S60 3rd_FP2	11-Mar-09
Nokia 6110 Navigator	S60 3rd_FP1	08-Feb-07
Nokia 6120	S60 3rd_FP1	17-Apr-07
Nokia 6121	S60 3rd_FP1	18-Jun-07
Nokia 6210 Navigator	S60 3rd_FP2	11-Feb-08
Nokia 6220	S60 3rd_FP2	11-Feb-08
Nokia 6290	S60 3rd_FP1	28-Nov-06
Nokia 6710 Navigator	S60 3rd_FP2	16-Feb-09
Nokia 6720 Classic	S60 3rd_FP2	16-Feb-09
Nokia E51	S60 3rd_FP1	18-Sep-07
Nokia E55	S60 3rd_FP2	16-Feb-09
Nokia E60	S60 3rd_INIT	09-Oct-05
Nokia E61	S60 3rd_INIT	09-Oct-05
Nokia E61i	S60 3rd_INIT	10-Feb-07
Nokia E62	S60 3rd_INIT	09-Sep-06
Nokia E63	S60 3rd_FP1	12-Nov-08
Nokia E65	S60 3rd_INIT	09-Feb-07
Nokia E66	S60 3rd_FP1	16-Jun-08
Nokia E70	S60 3rd_INIT	09-Oct-05
Nokia E71	S60 3rd_FP1	16-Jun-08
Nokia E75	S60 3rd_FP2	16-Feb-09
Nokia E90	S60 3rd_FP1	11-Feb-07
Nokia N71	S60 3rd_INIT	09-Nov-05

Nokia N73	S60 3rd_INIT	09-Apr-06
Nokia N75	S60 3rd_INIT	27-Sep-06
Nokia N76	S60 3rd_FP1	08-Jan-07
Nokia N77	S60 3rd_INIT	12-Feb-07
Nokia N78	S60 3rd_FP2	11-Feb-08
Nokia N79	S60 3rd_FP2	21-Aug-08
Nokia N80	S60 3rd_INIT	09-Nov-05
Nokia N81	S60 3rd_FP1	29-Aug-07
Nokia N81 8GB	S60 3rd_FP1	29-Aug-07
Nokia N82	S60 3rd_FP1	14-Nov-07
Nokia N85	S60 3rd_FP2	21-Aug-08
Nokia N86 8MP	S60 3rd_FP2	17-Feb-09
Nokia N91	S60 3rd_INIT	14-Apr-05
Nokia N92	S60 3rd_INIT	09-Nov-05
Nokia N93	S60 3rd_INIT	09-Apr-06
Nokia N93i	S60 3rd_INIT	08-Jan-07
Nokia N95	S60 3rd_FP1	26-Sep-06
Nokia N95 8GB	S60 3rd_FP1	29-Aug-07
Nokia N96	S60 3rd_FP2	11-Feb-08
Samsung I7110	S60 3rd_FP2	20-Oct-08
Samsung INNOV8	S60 3rd_FP2	25-Jul-08
Samsung SGH-G810	S60 3rd_FP1	11-Feb-08
Samsung SGH-i400	S60 3rd_FP1	26-Apr-07
Samsung SGH-i450	S60 3rd_FP1	14-Oct-07
Samsung SGH-i520	S60 3rd_FP1	09-Oct-06
Samsung SGH-i550	S60 3rd_FP1	15-Oct-07
Samsung SGH-i560	S60 3rd_FP1	16-Oct-07
Samsung SGH-L870	S60 3rd_FP2	28-May-08

APPLE IPHONE

The Apple iPhone application needs to be downloaded from the iPhone AppStore.

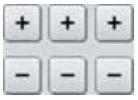
To download the Apple iPhone program:

1. Open Apple iTunes.
2. Search for “aplayer” which is offered by company “Longterm,” our third party supplier. It is a free application.
3. Download and install onto the iPhone per iPhone installation procedures.
4. Click the application icon to open the main application screen.

Play button - press to connect to DVR and view live feed

Switch between channels

Control PTZ camera direction*



Set PTZ*, Focus, and Iris

Setting menu to connect to DVR

Take a photo snapshot

* Cameras supplied with 8800 system are not equipped with PTZ feature.

5. Click the settings icon to open the setting menu.

Server IP:	DVR IP address
Port:	Mobile Port (default: 7050)
Username:	Login User Name (Admin)
Password:	Default: 888888

6. Click BACK to save settings and return to the main window.

Troubleshooting

Problem	Solution
DVR fails to start after being connected to the power supply	Make sure the power switch on the DVR is turned on and that there is sufficient power. Make sure the start-up procedure is working.
DVR restarts repeatedly	Make sure the power supply has sufficient power to operate the hard disks. Disconnect all cameras and network connections, and start the DVR. If this doesn't solve the problem, remove the cover and take out the hard drive. A corrupted or damaged hard drive may cause repeated reboots.
DVR crashed when recording or playing recorded information	Check for problems with the HDD. If one of the hard disks has failed or malfunctioned, replace it and try again.
Updating operation fails	Make sure the DVR is able to recognize the USB storage device. Test more than one USB storage device to ensure compatibility. Contact qualified technician to check for line voltage fluctuations.
Mouse does not work	Use the mouse provided with the DVR or try other mice to find one that works. Wireless mice do not work with the DVR.
Recording function does not work properly	Make sure HDD connections are correct. Make sure HDD is formatted. Make sure the menu settings are correct.
Image on the monitor appears in black and white rather than color	Make sure the video input, DVR, and monitor systems are compatible, i.e. all NTSC or PAL. At night time, most video appears black/white. If you find incompatibility or inconsistency, set the monitor option to the automatic identification state.
Nothing displayed on the monitor	Make sure the monitor power supply is on and the brightness is at its lowest condition. Make sure the video cable is properly connected.
Image isn't clear	Check for interference (e.g., power lines, cell phones, microwaves). Make sure the video cable is not damaged and the connections are good. Check the condition of the camera, monitor, and circuits for any signs of damage or deterioration.
Color quality is low in both real-time and recorded images	Check adjustment of the output/input video parameters on the DVR menu. Check the connecting cables to ensure good connectivity.

Problem	Solution
Mosaic on the PC monitor during playback	Make sure the recording parameters are not set too low. The recording quality may decline, resulting in occasional mosaics. Adjust the settings. Damaged sections on hard disks can cause mosaics during playback.
Displayed date and time are not correct	Login as Administrator and adjust Date and Time settings in the System tab of the Main Menu.
Forgot password	Please contact the Consumer Affairs Division at 1-800-323-9005, Monday through Friday, 7:30 a.m. – 5 p.m., Central Standard Time.

Technical Information

DVR

Video Format	NSTC/PAL H.264 Baseline Compression
Video Input	BNC 4 CH Input / 1 Output
Alarm Type	Motion detection, Sensor Input, Relay Output , Video Loss
Sensor In/Out	8 CH Input / 1 CH Output
Display Frame Rate	Each Channel: NTSC (30 fps); PAL (25 fps)
Playback Resolution	NTSC: CIF (352x240), half D1 (704x240), D1 (704x480) PAL: CIF (352x288), half D1 (704x288), D1 (704x576)
Record Frame Rate	NTSC: 120 fps @ CIF, half D1 @ 120 fps, D1 @ 60 fps PAL: 100 fps @ CIF, half D1 @ 100 fps, D1 @ 50 fps
Record method	Power-On Auto Record, Scheduled Record (Manual Record, Motion Detection, Sensor Trigger) Support Privacy Mask
HDD Interface	SATA Interface support 1TB
Network Protocol	TCP-IP/DHCP/DNNS/PPPoE/Email
Network Function	IE Browser Live Monitor, Configuration, Download Video Mobile Phone Surveillance
USB 2.0 Interface	Mouse/Portable Mobile HDD/Flash Drive/ DVD Burner/ Firmware Upgrade
Playback Method	Normal Play, Fast Forward, Rewind, Single Step
Network Interface	RJ45 10M/ 100M Ethernet Auto Detect
Video Backup	MP4, AVI, or H.264 Raw
Power Adapters	DC 12V
Power Consumption	10–15W
Operating Humidity	10–90% RH
Dimensions	12.4” (W) x 8.8” (D) x 2.0” (H)

CAMERA

Image Sensor	CMOS
Resolution	400 TV lines
Effective Pixels	NTSC: 656 x 492
Lens	6.0mm
White Balance	Automatic
Signal/Noise Ratio	> 48dB
Gain Control	Automatic
Backlight Compensation	Automatic
Viewing Angle	40 degrees
Color	Yes
Indoor/Outdoor	Both
Number of Infrared LEDs	30
Night Vision Distance	Up to 50 ft
Operating Temperature	32 - 105°F
Dimensions	5.5”(H) x 2.8”(W) x 7”(D)
Power Adapter	DC 12V

First Alert®

Warranty

PRODUCT LIMITED WARRANTY

BRK Brands, Inc., ("BRK") the maker of First Alert® brand products warrants that for a period of one year from the date of purchase (the "Warranty Period"), this product will be free from defects in material and workmanship. BRK, at its sole option, will repair or replace this product or any component of the product found to be defective during the Warranty Period. Replacement or repair will be made with a new or remanufactured product or component. If the product is no longer available, replacement may be made with a similar product of equal or greater value. This is your exclusive warranty.

This warranty is valid for the original retail purchaser only from the date of initial retail purchase and is not transferable. In order to obtain warranty service, you must keep the original sales receipt and proof of purchase in the form of the UPC code from the package. BRK dealers, service centers, or retail stores selling BRK products do not have the right to alter, modify or any way change the terms and conditions of this warranty.

WARRANTY EXCLUSIONS

Parts and Labor: 1 year limited (warranted parts do not include bulbs, LEDs, and batteries)

This warranty does not apply to bulbs, LEDs, and batteries supplied with or forming part of the product.

This warranty is invalidated if non- BRK accessories are or have been used in or in connection with the product or in any modification or repair is made to the product.

This warranty does not apply to defects or damages arising by use of the product in other than normal (including normal atmospheric, moisture and humidity) conditions or by installation or use of the product other than in strict accordance with the instructions contained in the product owner's manual.

This warranty does not apply to defects in or damages to the product caused by (i) negligent use of the product, (ii) misuse, abuse, neglect, alteration, repair or improper installation of the product, (iii) electrical short circuits or transients, (iv) usage not in accordance with product installation, (v) use of replacement parts not supplied by BRK, (vi) improper product maintenance, or (vii) accident, fire, flood or other Acts of God.

This warranty does not cover the performance or functionality of any computer software included in the package with the product. BRK makes no warranty that the software provided with the product will function without interruption or otherwise be free of anomalies, errors, or "Bugs." This warranty does not cover any costs relating to removal or replacement of any product or software installed on your computer.

BRK reserves the right to make changes in design or to make additions to or improvements in its products without incurring any obligations to modify any product which has already been manufactured. BRK will make every effort to provide updates and fixes to its software via its website. This warranty does not cover any alteration or damage to any

other software that may be or may become resident on the users system as a result of installing the software provided. This warranty is in lieu of other warranties, expressed or implied, and BRK neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale or service of the product. In no event shall BRK be liable for any special or consequential damages arising from the use of the product or arising from the malfunctioning or non-functioning of the product, or for any delay in the performance of this warranty due to any cause beyond its control.

BRK does not make any claims or warranties of any kind whatsoever regarding the product's potential, ability, or effectiveness to prevent, minimize, or in any way affect personal or property damage or injury. BRK is not responsible for any personal damage, loss, or theft related to the product or to its use for any harm, whether physical or mental related thereto. Any and all claims or statements, whether written or verbal, by salespeople, retailers, dealers, or distributors to the contrary are not authorized by BRK, and do not affect this provision of this warranty.

BRK's responsibility under this, or any other warranty, implied or expressed, is limited to repair, replacement or refund, as set forth above. These remedies are the sole and exclusive remedies for any breach of warranty. BRK is not responsible for direct, special, incidental, or consequential damages resulting from any breach of warranty or under any other legal theory including but not limited to, loss profits, downtime, goodwill, damage to or replacement of equipment and property and any costs of recovering, reprogramming or reproducing any program or data stored in or used with a system containing the product accompanying software.

BRK does not warrant the software will operate with any other software except that which is indicated. BRK cannot be responsible for characteristics of their party hardware or software which may effect the operation of the software included.

Except to the extent prohibited by applicable law, any implied warranty of merchantability or fitness for a particular purpose is limited in duration to the duration of the above Warranty Period. Some states, provinces, or jurisdictions do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state, or province to province, or jurisdiction to jurisdiction.

OBTAINING SERVICE

If service is required, do not return the product to your retailer. In order to obtain warranty service, contact the Consumer Affairs Division at 1-800-323-9005, 7:30 a.m. – 5:00 a.m. Central Standard Time, Monday through Friday. To assist us in serving you, please have the model number and date of purchase available when calling.

After contacting the Consumer Affairs Division and it is determined that the product should be returned for Warranty Service, please mail the product to: Lehigh, 2834 Schoeneck Rd, Macungie, PA 18062-9679.